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CITY OF WAKEFIELD.

# REPORT

ON THE

PUBLIC HEALTH

AND

SANITARY STATE

OF THE

CITY OF WAKEFIELD

FOR THE YEAR 1931,

BY

THOMAS GIBSON, M.D., C.M., D.P.H.

MEDICAL OFFICER OF HEALTH.





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PUBLIC HEALTH DEPARTMENT,

TOWN HALL,

WAKEFIELD,

14th June, 1932.

*To the Mayor, Aldermen and Councillors  
of the City of Wakefield.*



MR. MAYOR, LADIES AND GENTLEMEN,

I beg to submit for your information and consideration a Report on the Public Health and Sanitary State of Wakefield for the year 1931.

In the preparation of the Report, which follows the lines required by the Ministry of Health, I have received valuable assistance from many colleagues, particularly from Dr. Eeles, who has prepared the Maternity and Child Welfare Section, and from Mr. Roberts, who has prepared the Sanitary Administration Section.

I should like to take the opportunity of expressing my appreciation of the ungrudging help and loyal co-operation given me by all the Staff of this Department, both in the Town Hall and at the Hospitals.

I am,

Yours faithfully,

THOMAS GIBSON,

*Medical Officer of Health.*

**(1) GENERAL STATISTICS.**

Area	..	..	..	..	..	..	4,971 acres.
Population (Census, 1931)	..	..	..	..	..	..	59,115
Number of Inhabited Houses (Census, 1921)							11,252
Rateable Value	..	..	..	..	..	..	£334,855
Sum represented by a Penny Rate	..	..	..	..	..	..	£1,315

The institutional population at the middle of the year was 3,374, of which 2,863 were non-residents, and 511 were residents. The nett population, excluding non-residents, was 56,252, and this figure has been used as the basis for calculating the various rates given in this report, other than the infectious disease attack rates. The figure given as the nett population in 1931 is very much in excess of the corresponding figure for 1930. The 1931 Census shows that the intercensal rate of increase, namely, 11·4 per cent. was higher than had been estimated; the increase during the previous decennium had been 2·7 per cent. The birth, death, etc., rates given in this report are calculated on the revised figures, and the rates for the years in the intercensal period have also been revised in the light of the 1931 Census.

**(2) EXTRACTS FROM THE VITAL STATISTICS OF 1931.****1 Marriages.**

486 marriages were celebrated, equal to a marriage rate of 17·3 persons married per 1,000 of the population, as compared with 17·6 in 1930, 17·8 in 1929, and 17·7 the average for the past 10 years. There were 7 less marriages in 1931 than in 1930.

**2. Births.**

Excluding 106 non-resident births and including 21 resident births which occurred outside the City, the total number of births registered in the City was 948 (470 males and 478 females), giving a birth rate of 16·85 per 1,000 of the population, as compared with 17·98 in 1930, and 19·60 the average for the past 10 years. The number of births in 1931 was 57 less than in 1930. The birth rate in England and Wales in 1931 was 15·8, and in the large towns 16·0. 49 births (5·2 per cent.) were illegitimate.

Under the Notification of Births Act, 1,055 births were notified. 568 from dwelling houses, and 487 from institutions. Of the 568 home confinements, 381 were attended by doctors, and 187 by midwives. The institution births include 425 in the Municipal Maternity Hospital, 34 in the County Hospital, and 28 in a Private Maternity Home. 442 of the institutional confinements were attended by midwives and 45 by doctors. 57 of the registered births (6.0 per cent.) were not notified, as compared with 6.2 per cent. in 1930, and 2.5 per cent. in 1929. 48 (4.5 per cent.) of the notified births were still-births.

### **Remarks on the Birth Rate.**

The birth rate still tends to decline, though not to the same extent as in certain other Yorkshire towns, and we are still above the average for the whole country. The natural increase in the population was also less than usual, for the excess of births over deaths only amounted to 150 during 1931. The birth rate question appears to be giving much concern to many people. There are, on the one hand, those who see in the declining birth rate an ominous menace to the future stability of the country, and on the other hand, there are people who are equally emphatic that the birth rate is still too high, and who strongly advocate contraceptive measures to secure its further decline. My own view of the matter is that the present position of the birth rate need give no occasion for anxiety to public health authorities. At any rate, it is a matter which is mainly determined by biological laws, which can be little influenced, if at all by legislative or administrative interference. I also believe that contraceptive propaganda is not a matter which concerns a public health authority as such, except in so far as it may be shewn to be detrimental to the health of those practising it. In the main, it is a sociological and not a medical problem. Occasionally, it may, of course, be a medical problem, but then it is a private matter between the persons concerned and their medical advisers.



## CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1931.

		Nett Deaths at the subjoined ages of " Residents " whether occurring within or without the district.								
Causes of Death.		Total All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and under 75 years.
1		2	3	4	5	6	7	8	9	10
All Causes	( Certified .. ( Uncertified ..	798 —	80 —	14 —	29 —	35 —	35 —	97 —	209 —	174 —
Enteric Fever	.. ..	7		5	2					
Smallpox	.. ..	2								
Measles	.. ..	6	3	1	1	1				
Scarlet Fever	.. ..	24		1	5	17			1	
Whooping Cough	.. ..	18	4		1	2	1	4	1	3
Diphtheria and Croup	.. ..									
Influenza	.. ..	2				1	1			
Encephalitis Lethargica	.. ..									
Meningococcal Meningitis	.. ..	46			1	1	7	16	21	
Tuberculosis of Respiratory System	.. ..	11		1	2	3	2	2	1	
Other Tuberculous Diseases	.. ..	90					1	3	45	30
Cancer, Malignant Disease	.. ..	2						2		
Rheumatic Fever	.. ..	3							1	2
Diabetes	.. ..	58						8	19	21
Cerebral Haemorrhage	.. ..	119				2	2	6	38	44
Heart Disease	.. ..	30							7	12
Arterio Sclerosis	.. ..	67	8				1	2	12	18
Bronchitis	.. ..	62	14	3	4	2	2	9	14	9
Pncumonia (all forms)	.. ..	8			1			3	2	2
Other Respiratory Diseases	.. ..	8						3	3	2
Ulcer of Stomach and Duodenum	.. ..	15	14	1						2
Diarrhoea, etc. (under 2 years)	.. ..	9					1	3	5	
Appendicitis and Typhlitis	.. ..									
Cirrhosis of Liver	.. ..	18					1	1	8	6
Acute or Chronic Nephritis	.. ..	1						1		
Puerperal Sepsis	.. ..	6						6		
Other accidents and diseases of pregnancy and parturition	.. ..	35	35							
Congenital debility and malformation, premature birth	.. ..	8					3	1	2	2
Suicide	.. ..	27	1	1	2	1	5	8	7	2
Other deaths from Violence	.. ..	115	1	1	7	5	8	19	22	21
Other defined diseases	.. ..	1			1					
Causes ill-defined or unknown	.. ..									
Uncertified	.. ..									
Totals	..	798	80	14	29	35	35	97	209	174
Sub-Entries included in above figures :—										
Old Age	.. ..	22								3
Broncho Pneumonia	.. ..	23	12	2	2		1	1	3	1
Syphilis	.. ..	1						1		

The total number of deaths registered in Wakefield was 1,123, including 352 non-residents. In addition, 27 resident deaths occurred outside the City. The number of resident deaths was therefore 798 (409 males and 389 females), giving



a death rate of 13·2 per 1,000 of the population, as compared with 12·88 in 1930, and 13·2 the average for the past ten years. In 1931 there were 78 more deaths than in 1930. The 1931 general death rate in England and Wales was 12·3, and in the large Towns, 12·3. All the deaths were certified. 244 (31 per cent.) of the resident deaths occurred in Institutions.

The number and percentage of deaths at the various age periods were :—

Age period.	No. of Deaths 1931.	Percentage 1931.	Percentage 1930.
Under 1 year .. ..	80	10·0	8·0
1—2 years .. ..	14	1·7	2·9
2—5 „ .. ..	29	3·6	3·1
5—15 „ .. ..	35	4·4	3·1
15—25 „ .. ..	35	4·4	4·0
25—45 „ .. ..	97	12·2	11·4
45—65 „ .. ..	209	26·2	31·1
65—75 „ .. ..	174	21·8	21·8
Over 75 years .. ..	125	15·7	14·6

The following Table gives the chief causes of Death :—

Cause of Death.	No. of Deaths, 1931.	Males.	Females.	Percentage of total deaths in 1931.	Percentage of total deaths in 1930.
Heart Disease .. ..	119	57	62	14·9	12·1
Cancer .. ..	90	42	48	11·3	12·1
Bronchitis .. ..	67	37	30	8·4	6·8
Pneumonia .. ..	62	38	24	7·8	9·0
Cerebral Haemorrhage	58	27	31	7·3	8·5
Tuberculosis (all forms)	57	34	23	7·1	6·9
Congenital Debility, Malformation and Premature Birth ..	35	20	15	4·4	3·6
Arterio-sclerosis ..	30	17	13	3·8	2·9
Violence (excluding Suicide) .. ..	27	20	8	3·4	4·6
Diphtheria .. ..	24	8	16	3·0	0·5

There were 119 deaths from Heart Disease (57 males and 62 females), giving a death rate of 2.12 as compared with 1.56 in 1930, and 1.71 the average for the past 10 years. The number of deaths was 32 more than in 1930. 92 per cent. of the deaths were of persons 45 years of age and over, and 23 per cent. of persons over 75 years of age.

There were 90 deaths from Cancer (42 males and 48 females), giving a death rate of 1.60 as compared with 1.56 in 1930, and 1.33 the average for the past 10 years. There were 3 more deaths than in 1930.

There were 67 deaths from Bronchitis (37 males and 30 females), giving a death rate of 1.19 as compared with 0.08 in 1930, and 1.13 the average for the past 10 years. There were 18 more deaths than in 1930.

There were 62 deaths from Pneumonia (38 males and 24 females), giving a death rate of 1.10 as compared with 1.16 in 1930, and 1.21 the average for the past 10 years. There were 3 deaths less than in 1930.

There were 58 deaths from Cerebral Haemorrhage (27 males and 31 females), giving a death rate of 1.03 as compared with 1.09 in 1930, 1.01 in 1929, and 1.03 in 1928. There were 3 deaths less than in 1930.

There were 57 deaths from Tuberculosis (all forms) (34 males and 23 females), giving a death rate of 1.01, as compared with 0.89 in 1930, and 1.08 the average for the past 10 years. There were 7 more deaths than in 1930.

There were 46 deaths from Pulmonary Tuberculosis (27 males and 19 females), giving a death rate of 0.82 as compared with 0.57 in 1930, and 0.80 the average for the past 10 years. There were 14 more deaths than in 1930.

There were 11 deaths from Non-pulmonary Tuberculosis, (7 males and 4 females), giving a death rate of 0.19, as compared with 0.32 in 1930, and 0.28 the average for the past 10 years. There were 7 deaths less than in 1930.

There were 15 deaths of infants under 2 years of age from Diarrhoea and Enteritis, giving a death rate of 15.8 per 1,000 births, as compared with 0.99 in 1930, and 12.7 the average for the past 10 years. The corresponding rate in England and Wales during 1931, was 6.0.

The number of infantile deaths (*i.e.*, under one year of age) was 80 (44 males and 36 females), giving an infantile

mortality of 84 per 1,000 births, as compared with 58 in 1930, and 82 the average for the past 10 years. The corresponding rate for England and Wales during 1931 was 66, and in the large Towns, 71.

In the first quarter of the year, the rate was 148, in the second quarter, 55, in the third quarter, 67, and in the fourth quarter, 67. The legitimate infantile mortality was 86 per 1,000 births, and the illegitimate 61 per 1,000 births. The neo-natal mortality (*i.e.*, the mortality during the first month of life), was 40 per 1,000 births, as compared with 30 in 1930, and 36 the average for the past 10 years.

The infantile mortality in the various Wards, was as follows :—

South Westgate	173	Alverthorpe	..	91	Sandal	..	61	
Primrose Hill	..	141	Belle Vue	..	87	Calder	..	55
Northgate	..	114	Kirkgate	..	87	Eastmoor	..	42
St. John's	..	109	North Westgate	69				

The causes of infantile mortality were :—Congenital Debility, Malformation and Premature Birth, 35; Pneumonia, 14; Diarrhoea and Enteritis, 14; Bronchitis, 8; Influenza, 4; Whooping Cough, 3; Violence, 1; and other causes, 1. 29 per cent. of the infantile deaths occurred in the first week of life, 47 per cent. during the first month, and 82 per cent. during the first six months.

There were 7 maternal deaths from diseases and accidents of pregnancy and parturition, giving a mortality of 7·38 per 1,000 births, as compared with 5·97 in 1930. and 5·94 the average for the past 10 years. There was one death from Puerperal Sepsis included in the above, and in this case, the illness followed an abortion. 2 of the maternal deaths occurred in the Clayton Hospital, 2 in the Maternity Hospital, 2 at home, and 1 died outside the City.

The 27 deaths from Violence included 6 from drowning, 5 from falls (2 at work, 3 otherwise), 4 from vehicular accidents, 4 from colliery accidents, 2 from scalds (aged 30 years and 13 months), 2 from poisoning, and 4 from other injuries.

There were also 8 suicidal deaths, comprising 4 from drowning, 2 from coal gas poisoning, and 2 from injuries caused by railway trains.

101 inquests were held during the year, 62 on residents and 39 on non-residents.



## REMARKS ON THE DEATH RATE.

The death rate during 1931 was somewhat higher than that of the previous year, and was exactly the same as the average for the preceding 10 years. It was also about 1 per 1,000 higher than the general death rate of England and Wales. The diseases which mainly accounted for the increase were Heart Disease, Diphtheria, Bronchitis, Infantile Diarrhoea, Congenital Debility and Premature Birth, Pulmonary Tuberculosis, and Influenza. Taking the systemic groups of diseases, the respiratory group (Bronchitis, Pneumonia, and other respiratory diseases), stand as usual at the top of the list, accounting for nearly one-sixth of the total mortality. If Pulmonary Tuberculosis were included, the deaths due to diseases of the respiratory system would be higher still. Climatic conditions plus a smoky atmosphere and plus unsatisfactory housing conditions for a considerable proportion of the population continue to exact a heavy toll through their inimical effects on the respiratory organs. Taking deaths from diseases of individual organs, Heart Disease is responsible for the greatest number of deaths, and shews a very considerable increase over the average for the preceding 10 years. At the same time, these crude figures should be carefully qualified, for the term "Heart Disease" includes a great variety of conditions of varying significance, and the term may be applied to some terminal condition which is really not the cause of death at all. The fact that nearly a quarter of the deaths from Heart Diseases were persons 75 years of age or more suggests that the Heart Disease in many cases was probably little more than a form of senile degeneration. From the preventive point of view, Endocarditis and Valvular Disease of the Heart are the forms of Heart Disease of most importance, for these are mostly caused by rheumatic infection. There were 49 deaths (19 males and 30 females) certified to be due to Endocarditis, or Valvular Disease, or just over 40 per cent. of the total deaths from Heart Disease, the remainder being described as Myocarditis, Myocardial Degeneration, or simply as "Heart Disease." Rheumatic Heart Disease generally originates in childhood or adolescence, although its consequences, in the form of Valvular Disease, may extend quite late in life. Although causing a number of deaths in the early years of life, Valvular Disease becomes most serious during the working period of life. At the same time, quite a number of people with the disease live to an advanced age, and in 1931, 6 sufferers died at ages over 75 years (76 years (2), 78 (2), 79 and 83). The problem of the prevention of Rheumatic Heart Disease is only partially



solved, but even with our available knowledge, a good deal could be done to mitigate the mischief.

The mortality from Cancer shows no signs of reduction.

The decline in the mortality from Tuberculosis which has been noted for many years, received a check in 1931. There was in fact a decline in the mortality from Non-pulmonary Tuberculosis, but it was more than counter-balanced by the increase in the mortality from Pulmonary Disease. There is, however, every reason to believe that the check is but a temporary one.

Although the Infantile Mortality is higher than that of 1930, it is still below the average for the previous 10 years. The increase was due to an excessive mortality in the first quarter of the year, when the general mortality was also very high. It is noteworthy that 44 per cent. of these deaths were due to Premature Birth and Congenital Debility and Malformations, conditions which are largely outside the sphere of prevention. It is difficult to account for the great variation in the rates of infantile mortality in the different Wards. For example, Eastmoor Ward, which had the lowest rate in 1931, had the highest rate in 1930. St. John's Ward had the extraordinarily low rate of 15 in 1930, but in 1931, the rate had risen to 109.

It is disappointing to find the maternal mortality continuing unduly high, notwithstanding the efforts made to reduce it. In a few of the cases, antenatal supervision might have averted the fatal issue, and one can only reiterate the paramount importance of skilled antenatal supervision throughout pregnancy. There are, however, cases where it is difficult to say how the death could have been prevented.

The only infectious disease which stands out prominently in the mortality list is Diphtheria.

The number of deaths from Violence was rather less than in 1930, and the number from vehicular accidents was reduced from 11 to 4.

## GENERAL PROVISION OF HEALTH SERVICES.

### Public Health Officers.

The following are the Officers of the Public Health Department :—

Name.	Qualifications.	Office held.
Thomas Gibson ..	M.D., C.M. (Edin.) D.P.H.	Medical Officer of Health. School Medical Officer. Tuberculosis Officer. Medical Officer for Maternity Hospital and Child Welfare Centres. Medical Superintendent of the Fever Hospital. Medical Officer under the Mental Deficiency Act. Police Surgeon.
Frank Allardice ..	M.D., Ch.B., D.P.H. (Edin.)	Deputy Medical Officer of Health. Assistant School Medical Officer and School Ophthalmologist. Assistant Medical Officer for Maternity and Child Welfare.
Jessie Eeles ..	M.D., Ch.B. (Edin.) ..	Assistant Medical Officer. Assistant Medical Officer for Maternity and Child Welfare. Assistant School Medical Officer.
J. W. Thomson ..	M.B., C.M. (Aberdeen) ..	Consulting Obstetric Surgeon (Part time).
A. W. Frew ..	L.R.C.P., L.R.C.S., L.R.F.P.S., D.P.H., R.C.P.S. (Edin.).	Medical Officer for Venereal Diseases (Part time).
H. L. Crockatt ..	M.B., Ch.B. (Leeds) ..	Consulting Orthopaedic Surgeon (Part time).
William Roberts ..	Certificates of Royal Sanitary Institute for (1) Inspector of Nuisances and (2) Inspector of Meat and other Foods.	Senior Sanitary Inspector. Inspector of Meat and other Foods. Inspector under the Hous- ing Regulations. Inspector of Canal Boats.

Name.	Qualifications.	Office held.
Harold F. Jowett ..	Certificates of Royal Sanitary Institute for (1) Sanitary Inspectors. (2) Inspector of Meat and other Foods. Certificate of Company of Plumbers.	Deputy Senior Sanitary Inspector. District Sanitary Inspector. Inspector of Meat and Other Foods. Inspector Under the Housing Regulations.
William V. Hargreave.	Certificates of Royal Sanitary Institute for (1) Sanitary Inspectors. (2) Inspector of Meat and other Foods.	District Sanitary Inspector. Inspector of Meat and other Foods. Inspector under the Housing Regulations.
William Dawson	Certificates of Royal Sanitary Institute for (1) Sanitary Inspectors. and (2) Inspector of Meat and other Foods. Certificate of the Company of Plumbers.	Ditto.
Arthur Seaton ..	Certificate of Royal Sanitary Institute for (1) Sanitary Inspectors. (2) Inspector of Meat and Other Foods.	Ditto.
Sarah S. Thorp ..	Certificate of Royal Sanitary Institute for (1) Inspector of Nuisances (2) Maternity and Child Welfare, and (3) Health Visitor and School Nurse. C.M.B. Certificate. New Certificate of Royal Sanitary Institute for Health Visitors.	Senior Health Visitor. Superintendent, Belle Vue Child Welfare Centre. School Nurse. Tuberculosis Nurse.
Hilda Staniforth ..	Trained Nurse .. .. C.M.B. Certificate. Certificate of Royal Sanitary Institute for (1) Inspector of Nuisances (2) Health Visitor, and (3) School Nurse. New Certificate of Royal Sanitary Institute for Health Visitors.	Health Visitor. School Nurse. Tuberculosis Nurse. Superintendent, Eastmoor District Child Welfare Centre (held at Principal Centre.)
Hilda Robertshaw ..	Trained Nurse .. .. C.M.B. Certificate. New Certificate of Royal Sanitary Institute for Health Visitors.	Health Visitor. School Nurse. Tuberculosis Nurse. Superintendent, Thornes Lane District Child Welfare Centre (held at Principal Centre).



Name.	Qualifications.	Office held.
Maggie Dearden ..	Trained Nurse .. .. C.M.B. Certificate New Certificate of Royal Institute for Health Visitors.	Health Visitor. School Nurse. Tuberculosis Nurse. Superintendent, Snape- thorpe Hall Child Welfare Centre.
Jennett Gardner ..	Trained Nurse .. .. C.M.B. Certificate. New Certificate of Royal Sanitary Institute for Health Visitors.	Health Visitor. School Nurse. Tuberculosis Nurse. Superintendent, South Westgate District Child Welfare Centre (held at the Principal Centre).
Ethel W. Farrar ..	Trained Nurse. .. .. C.M.B. Certificate. New Certificate of Royal Sanitary Institute for Health Visitors.	Health Visitor. School Nurse. Tuberculosis Nurse. Superintendent. Northgate District Child Welfare Centre (held at Principal Centre).
Olive I. Burton ..	Trained Nurse .. .. Certificates of Chartered Society of Massage and Medical Gymnastics for (1) Massage, and (2) Swedish Remedial Exercises.	Orthopaedic and Ultra- Violet Ray Clinic Nurse. Nurse at Principal Child Welfare Centre.
A. J. Peck .. ..	Trained Fever Nurse ..	Matron of City Fever Hospital.
Kate P. Perkins ..	Trained Nurse .. .. C.M.B. Certificate.	Matron of Maternity Hospital.
Herbert Pollard ..	M.R.C.V.S. .. ..	Veterinary Surgeon. Veterinary Inspector of Dairy Cows (Part-time Officer).
F. W. Richardson	F.I.C. .. ..	Analyst of Food, Drugs and Fertilizers (Part-time Officer).

The Clerical Staff consists of :—

#### General.

William V. Morris, Chief Clerk and Vaccination Officer.  
Ronald Shaw.  
Edward Land.

#### Maternity and Child Welfare.

Beatrice Lake (Part-time School Medical Service).  
Mary T. Kelly, Clerk and Assistant at the Principal Child  
Welfare Centre.



**School Medical Service.**

Herbert W. Tate.

**Sanitary Inspector's Office.**

George O. Allen.

The Corporation also employs two Salaried District Midwives.

Mr. J. T. Briggs, District Sanitary Inspector, resigned his post in November, 1931, and was succeeded by Mr. Arthur Seaton at the end of the year.

Miss Winifred Wilson, Health Visitor, resigned in July, 1931, and was succeeded by Miss Ethel W. Farrar in August, 1931.

Miss M. Cockin, Matron at the Maternity Hospital, resigned in December, 1931, and was succeeded by Miss Kate P. Perkins.

Mr. Robert Clarkson, Clerk and Assistant to the Chief Sanitary Inspector, resigned in December, 1931, and Mr. G. O. Allen was appointed to the post from the General Office. Mr. Edward Land was appointed to fill the vacancy caused by the transfer of Mr. G. O. Allen in December, 1931.

**Professional Nursing in the Home.****(a) General.**

This is chiefly provided by the local Nursing Association, which employs four Nurses. The Corporation has an arrangement with the Association for the home nursing of cases of puerperal pyrexia when required. One large engineering firm employs a Nurse to attend to their employees and their families.

**(b) Infectious Diseases.**

The Health Visitors render assistance in the home nursing of cases of Measles, Whooping Cough, Ophthalmia Neonatorum, Pneumonia, etc.

**Midwives.**

During 1931, 18 midwives gave notice of intention to practice, including 5 at the Maternity Hospital, 5 at the County Hospital, and 2 at a Private Maternity Home.

### Laboratory Facilities.

By arrangement with the West Riding County Council, the Wakefield Corporation is provided with facilities for pathological examinations at the County Hall Laboratory. These arrangements include the bacteriological examination of water, milk, and pathological specimens. Chemical and bacteriological examinations of the Wakefield Corporation water supply are made in the Laboratory of the West Riding Rivers Board. The Chemical analysis of food, drugs and fertilisers is carried out by Mr. F. W. Richardson, F.I.C., of Bradford.

### Legislation in Force.

In addition to the general public health legislation, the following local Acts provide powers relating to sanitary matters :—

(1) Wakefield Corporation Act, 1877.

Sections 44, 46, 53, 54, 55 in part, 57, 62, and 64, relating to streets and buildings and prohibiting back-to-back houses, are operative within the City.

(2) Wakefield Corporation Waterworks Act, 1880, empowered the Corporation to construct works to impound and use the waters of Rishworth Moors, on the Eastern side of the Pennine Chain. The powers of the Act have been extended and varied by several subsequent Acts.

(3) Wakefield Corporation Act, 1887.

This Act gives powers with respect to the notification of certain infectious diseases, and for preventing the spread of disease, but these have been superseded by later general legislation.

(4) Wakefield Corporation Act, 1924.

This Act gives powers with regard to waterworks, water supply and other matters, and also with regard to public health and sanitary matters. The public health provisions were fully set out in the annual report of 1924. In order to bring certain provisions of the Wakefield Corporation Act into conformity with the Public Health Act, 1925, the Minister of Health, by order, repealed the following Sections of the Local Act, namely. Sections 101, 103, 105, 109, 111, 112, 113, and 123.

The following Acts have been adopted :—

Infectious Diseases (Prevention) Act, 1890 (except Section 4, which is practically the same as Section 23 of the Wakefield Corporation Act, 1887).

Public Health Acts (Amendment) Act, 1890 (except Part 1).

Public Health Acts (Amendment) Act, 1907 (except Sections 18, 48, 78, 80, 82, 83, 92, and 94).

The following Byelaws relating to the public health are in force :—

- (1) Decent conduct of persons using sanitary conveniences, 1896.
- (2) Cleansing of footways and pavements and removal of house refuse, 1896.
- (3) Nuisances, 1896.
- (4) Common Lodging Houses, 1896.
- (5) Nuisances in connection with the removal of offensive or noxious matter, 1896.
- (6) Tents, Vans, Sheds and Similar Structures, 1906.
- (7) Offensive Trades, 1914.
- (8) Slaughterhouses, 1925.
- (9) New Streets and Buildings, 1926.
- (10) Houses let in Lodgings, 1926.
- (11) Municipal Slaughterhouses, 1926.
- (12) Smoke Abatement, 1928.
- (13) Byelaw as to Litter, 1930.

### **Maternity and Nursing Homes.**

There was one Maternity Home and one Nursing Home on the Register at the end of the year. No new applications for registration, or exemption from registration, were received.

### **Maternity Mortality.**

Investigations are made into all maternal deaths and cases of puerperal fever and pyrexia by Dr. Jessie Eccles, Medical Officer for Maternity and Child Welfare. Special reports on maternal deaths are sent to the Ministry of Health Committee on Maternal Mortality.

### **Ambulance Facilities.**

(1) For infectious cases, 2 motor ambulances are provided by the Corporation at the Fever Hospital. By arrangement with the Corporation, the Smallpox Motor Ambulance, belonging to the Wakefield and District Smallpox Hospital Committee is garaged at the Fever Hospital, and is worked by the Corporation driver.



(2) For non-infectious and accident cases, 2 Motor Ambulances are provided at the Police Station.

### Clinics and Treatment Centres.

#### (a) Maternity and Child Welfare Centres.

Situation.	When open.	Doctor. Attending.	Health Visitor in charge.
Principal Child Welfare Centre, 15, Margaret Street.	Monday .. Tuesday .. Wednesday .. Thursday ..	Dr. Eeles .. Dr. Eeles .. Dr. Allardice .. Dr. Eeles ..	Miss Wilson. Miss Staniforth Miss Gardner. Miss Robertshaw.
Belle Vue Child Welfare Centre, Primitive Methodist Sunday School Rooms, Doncaster Road.	Tuesday ..	Dr. Allardice	Miss Thorp.
Snapethorpe Hall Child Welfare Centre, Snape-thorpe.	Wednesday	Dr. Eeles ..	Miss Dearden.

(This Centre was opened on the 30th September, 1931, and replaces the Alverthorpe Centre).

Each Centre is open from 2 to 5 p.m. on the days stated.

#### (b) Ante-natal Clinic.

This is conducted by Dr. Eeles at the Maternity Hospital every Friday Afternoon, from 2 p.m., and every Wednesday Morning from 10 a.m.

#### (c) Post-natal Clinic.

This is conducted by Dr. Eeles at the Maternity Hospital every Wednesday Morning.

#### (d) School Clinics.

An Inspection and Treatment Clinic for Minor Ailments is provided at the Town Hall Chambers, King Street, and is open daily. The Ophthalmic and Dental Clinics are held in the



same building. An Ionisation Clinic for cases of Chronic Otorrhoea was started during the year at the Principal Child Welfare Centre.

**(e) Tuberculosis Dispensary.**

Is situated in Almshouse Lane and is used jointly with the West Riding County Council. It is open on Monday and Thursday Afternoons from 2 p.m., and on Thursday Evenings from 6-30 p.m.

**(f) Venereal Diseases Clinic.**

The Clinic for Venereal Diseases at the Clayton Hospital is in the charge of Dr. Frew, who holds every week two sessions for Men (Wednesday, 6 to 8 p.m., and Friday, 10 to 12 a.m.), and two sessions for Women and Children (Monday, 4 to 6 p.m., and Friday, 3 to 5 p.m.). Provision is made at the Clinic for daily irrigation and other treatment when required.

**(g) Orthopaedic Clinic.**

An Orthopaedic Clinic, provided by the Education Committee, is carried on at the Principal Child Welfare Centre in Margaret Street, and is also available for cases sent by the Health and Mental and Child Welfare Committees. Cases requiring special hospital treatment are sent to Kirbymoorside and Heatherwood Orthopaedic Hospitals. Orthopaedic treatment can also be obtained at the Clayton Hospital.

**(h) Ultra-Violet Ray Clinic.**

An Ultra-Violet Ray Clinic is provided by the Mental and Child Welfare Committee at the Principal Child Welfare Centre in Margaret Street, and is also available for cases sent by the Education and Health Committees.

**Local Government Act, 1929.**

The above Act provided for the transfer of the duties of Boards of Guardians to the Councils of Counties and County Boroughs. The Wakefield Corporation has established its own Public Assistance Committee to deal with out-door relief, but agreed to the transfer of the Poor Law Institution, including the Workhouse Infirmary and Scattered Homes, to the West Riding County Council. An agreement has been made between the two authorities for the maintenance and treatment of Wakefield residents in these institutions for a period of five years. All the institutions are situated within the City Boundary.

The duties of the late Board of Guardians relating to Vaccination and Infant Life Protection were transferred to the Corporation, and are now carried out by the Public Health Department.

Declarations were made by the Corporation that assistance otherwise than by way of Poor Relief be provided under the following Acts :—

Maternity and Child Welfare Act, 1918.

Blind Persons Act, 1920.

Education Act, 1921.

## HOSPITALS.

The full report on Hospitals given last year still stands good, for no changes have been made during 1931. It is expected, however, that important changes will be reported next year, for, at the time of writing, active steps are being taken to proceed with the erection of a new Fever Hospital at Snapethorpe, and a new Maternity Hospital at Manygates. The provision of a new Fever Hospital has been rendered possible through the magnificent generosity of an anonymous donor, who has offered to meet the whole cost of the Hospital, less the £5,000 previously voted by the Corporation, for improving the old Hospital, and less the cost of the land, which already belonged to the Corporation. This remarkable gift has been received by the Corporation and by the Citizens generally with the enthusiastic appreciation and deep gratitude which it so richly deserved, and the old saying that the value of a gift is trebly enhanced by the need of it applies very forcibly to this particular one.

Under the agreement with the West Riding County Council, the Wakefield Public Assistance Committee continued to utilise the County Hospital for Wakefield patients.

The Joint Hospital Consultative Committee met during the year, and, *inter alia*, further considered the special report made by me on the local hospital provision, but so far has made no definite recommendations thereon.

## SANITARY INSPECTION OF THE AREA.

*By William Roberts, Senior Sanitary Inspector.*

	<i>Inspections.</i>	<i>Re-Inspections.</i>
Number of Inspections made ..	19,674	3,931
Do. Complaints received ..	528	—
Do. Complaints confirmed ..	459	—
Do. Nuisances found .. ..	306	—
Do. Informal Notices served ..	582	—
Do. Statutory Notices served	126	—
Do. Notices outstanding at end of 1931 .. .. .	8	—
Do. Summonses issued ..	1	—
Do. Premises where work has been carried out by Verbal Notice or with- out Notice .. ..	198	—
Do. Letters sent .. ..	67	—
Do. Matters referred to City Surveyor .. ..	81	—
Do. Matters referred to Water- works Engineer ..	32	—

During the year it was necessary to institute legal proceedings against the occupier of a dwelling house for failure to comply with a Notice served on him under the Public Health Act, to cleanse and purify the house. The Magistrates fined the occupier £2 0s. 0d., and made an Order for the house to be immediately cleansed.

## SUMMARY OF INSPECTION WORK.

	<i>Inspections.</i>	<i>Re-Inspections.</i>
<b>Dwelling Houses.</b>		
Ordinary .. .. .	250	144
<i>Re</i> Infectious Diseases .. ..	390	145
<i>Re</i> Housing Consolidated Regula- tions, 1925 .. .. .	355	778
Water Closets .. .. .	299	187
Privies and Tub Closets .. ..	35	54
Ashplaces and Ashbins .. ..	150	95
Urinals .. .. .	31	16
Yards and Courts .. .. .	103	40
Dangerous Structures .. ..	12	36
<b>Drains.</b>		
Inspections .. .. .	613	123
Smoke Tests .. .. .	54	—



Water Tests	..	..	..	—	—
Chemical Tests	..	..	..	22	—

**Sewers, etc.**

Sewers	..	..	..	14	9
Street Gullies	..	..	..	45	8

**Factories and Workshops, etc.**

Factories	..	..	..	5	6
Workshops (excluding Bakehouses)				199	4
Workshops (including Restaurant Kitchens and Stables)				17	8
Bakehouses (Factory)	..	..		61	4
Bakehouses (Non-Factory)			..	144	19
Outworkers	..	..	..	2	—

**Miscellaneous.**

Canal Boats	..	..	..	30	2
Van Dwellings	..	..	..	4	—
Common Lodging Houses	..	..		168	25
Houses Let in Lodgings	..	..		163	64
Cowsheds	..	..	..	137	1
Dairies, Milkshops and Milk Stores				502	7
Ice Cream Premises	..	..		59	2
Private Slaughterhouses	..	..		2,764	2
Private do. (Special Notices)				120	—
Corporation Slaughterhouse	..			941	—
Borough Market	..	..	..	209	—
Cattle Market	..	..	..	25	—
Butchers' Shops	..	..	..	242	—
Fishmongers' Shops and Stalls	..			107	—
Cold Storage	..	..	..	18	—
Offensive Trade Premises (including Fish Frying Premises)	..	..		391	21
Piggeries	..	..	..	23	22
Smoke Observations	..	..		55	—
Meetings with Owners or Tradesmen				729	—
Special Visits	..	..	..	2,178	27
Visits under Rats and Mice Destruction Act	..	..	..	26	24
Visits to Houses of Entertainment				14	—
Miscellaneous (including Cesspools, Water Courses, Refuse Tips, etc.)				176	—
Schools	..	..	..	112	33
Streets or Back Roads	..	..		21	—

## SUMMARY OF SANITARY IMPROVEMENTS CARRIED OUT UNDER PUBLIC HEALTH ACTS.

### Dwelling Houses.

Cleansed or Limewashed	..	..	..	..	45
Overcrowding abated	..	..	..	..	23
Lighting improved	..	..	..	..	3
Ventilation improved	..	..	..	..	43
Roofs repaired	..	..	..	..	62
Eaves Spouts or Rain Water Fall Pipes repaired	..	..	..	..	100
External Walls, Chimneys, repaired or re-pointed	..	..	..	..	32
Inside Walls, Ceilings, etc., repaired	..	..	..	..	69
New Floors laid or repaired	..	..	..	..	43
Doors repaired	..	..	..	..	17
Fireplaces, etc., repaired	..	..	..	..	38
Stairways improved	..	..	..	..	13
Water Supply improved	..	..	..	..	11
New Water Supply laid on	..	..	..	..	1
Yards paved or repaired	..	..	..	..	23
Yards Cleansed	..	..	..	..	5
Food Stores improved	..	..	..	..	2
Washing Accommodation improved	..	..	..	..	8

### Drains.

Opened out for Inspection	..	..	..	..	13
Repaired	..	..	..	..	50
Re-constructed	..	..	..	..	17
Inspection Chambers constructed	..	..	..	..	20
Drains choked	..	..	..	..	1,385
Drains cleansed by Corporation Drain Cleanser	..	..	..	..	1,289
Drains cleansed by Owners	..	..	..	..	96
Drains Ventilated	..	..	..	..	16
Disconnected from Sewer	..	..	..	..	5
Rain Water Fall Pipes disconnected from Drains or Sewers	..	..	..	..	20
New Drains provided	..	..	..	..	85

### Accumulations Removed.

Manure	..	..	..	..	16
Other	..	..	..	..	15
Manure Pits provided	..	..	..	..	7

### Animals, Fowls, etc.

Nuisances abated	..	..	..	..	15
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**Ashbins, Ashplaces, etc.**

Movable Galvanised Iron Ashbins renewed ..	12
Movable Galvanised Iron Ashbins provided in lieu of Ashpits .. .. .	83
Dry Ashplaces abolished .. .. .	27
Dry Ashplaces repaired .. .. .	50
Intimations sent to the City Surveyor. Movable Galvanised Iron Ashbins requiring renewal ..	134

**Urinals.**

Urinals cleansed or improved .. .. .	3
New Urinals provided .. .. .	2
Repaired .. .. .	11
Abolished .. .. .	1

**Sinks.**

New Sinks provided .. .. .	31
Sink Waste Pipes trapped, renewed or repaired ..	57

**Piggeries.**

Swine removed .. .. .	6
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**Water Closets.**

Cleansed or Limewashed .. .. .	10
Repaired .. .. .	155
Additional provided .. .. .	46
Re-constructed .. .. .	6

## SUMMARY OF SANITARY IMPROVEMENTS CARRIED OUT UNDER HOUSING ACTS.

**Dwelling Houses.**

Lighting improved .. .. .	1
Ventilation improved .. .. .	192
Roofs repaired .. .. .	77
Eaves Spouts or Rain Water Fall Pipes repaired ..	94
External Walls, Chimneys, etc., repaired or re-pointed .. .. .	153
Inside Walls, Ceilings, etc., repaired .. .. .	198
Fireplaces, Ovens, or Set Pots repaired .. .. .	119
Stairways repaired .. .. .	12
Doors repaired .. .. .	9
Washing Accommodation provided .. .. .	4
Food Stores provided or improved .. .. .	15
Yards paved or repaired .. .. .	88



**Drains.**

Repaired .. .. .	9
Rain Water Fall Pipes disconnected from Drains or Sewers .. .. .	2

**Sinks.**

New Sinks provided .. .. .	93
Sink Waste Pipes trapped, renewed or repaired ..	22

**Water Closets.**

Additional provided .. .. .	20
Repaired .. .. .	63

**Ashplaces.**

Movable Galvanised Iron Ashbins renewed ..	6
Dry Ashpits repaired .. .. .	14
Dry Ashpits abolished .. .. .	—

**CLOSET ACCOMMODATION.**

The Closet Accommodation in the City is as follows :—

Water Closets (including 355 Trough Closets) ..	14,198
Privies .. .. .	47
Tub Closets .. .. .	14
Number of Privy Closets converted into Water Closets during 1931 .. .. .	18
Number of additional Water Closets provided in connection with the above .. .. .	—
Number of Tub Closets converted into Water Closets during 1931 .. .. .	4
Number of additional Water Closets provided in connection with the above .. .. .	—
Number of Privy Closets in addition to the above dispensed with .. .. .	1
Number of Tub Closets in addition to the above dispensed with .. .. .	—
Total Privy Closets abolished .. .. .	19
Total Tub Closets abolished .. .. .	4
Total Trough Closets abolished .. .. .	13

During 1931, 18 Privy Closets and 2 Tub Closets were converted into Water Closets under Section 39 of the Public Health Acts (Amendment) Act, 1907. The cost to the Corporation in carrying out these conversions was £141 16s. 0d.

The total number of Privy and Pail Closets remaining on the 31st December last, is Privy Closets 47 (34 attached to dwelling houses and 13 used in connection with workshops) and Pail Closets 14 (7 attached to dwelling houses and 7 used in connection with workshops). The Closets are situate in the following Municipal Wards:—Alverthorpe (1 Privy Closet), North Westgate (1 Privy Closet), South Westgate (9 Privies and 5 Pails), Primrose Hill (1 Privy and 7 Pails), Calder (14 Privies and 2 Pails), Belle Vue (6 Privy Closets), Sandal (15 Privy Closets).

Out of the total number of Privy and Pail Closets remaining in the City, conversion is only practicable in the case of 16 conveniences (13 Privies and 3 Pails).

Twelve of the Privy Closets referred to are used in connection with a factory, the owners of which, at the time of writing have submitted plans for the provision of new sanitary conveniences. The scheme includes the abolition of the existing Privy Closets, and it is expected that the work will be put in hand and completed before the end of 1932.

In the other case, the Privy Closet is attached to a dwelling house situate in a part of the City where road improvements are contemplated being carried out, and it is proposed to demolish the house and convenience to give effect to the scheme.

The three Pail Closets suitable for conversions are used in connection with a goods depot of one of the railway termini. It is not possible to deal with these Closets on account of railway property not being amenable to Public Health Law.

With regard to the remaining 34 Privies and 11 Pail Closets, the conveniences are situate in districts not provided with a public sewer, and in the majority of cases, the type of property does not warrant the installation of sewerage systems.

### CANAL BOATS.

The number of Boats on the Register is 9, and 30 Boats were inspected during the year. The Boats inspected were occupied by 46 males and 17 females, 4 Children over 5 years of age and 4 Children under 5 years of age.

The Boats were all found to be in a clean condition, and in 7 instances it was necessary to draw attention to contraventions of the Canal Boats Acts.

## COMMON LODGING HOUSES.

Number on Register at end of 1931.	For both Sexes.	For Men only.	Number of Persons registered for.
18	9	9	753

One new Licence was granted during the year, and gave an increased accommodation for 99 Lodgers of both sexes.

Defects.	Found.	Remedied.
Cleansing .. .. .	18	18
Floors .. .. .	1	1
Water Closets .. .. .	5	5
Drainage .. .. .	2	2
Dirty Bedding .. .. .	1	1
Other Dilapidations .. .. .	2	2

All the houses have been regularly inspected throughout the year, and the houses have been kept in a satisfactory manner.

## HOUSES LET IN LODGINGS.

Number on Register at end of 1931	..	..	25
Number taken off during year	..	..	5
Number put on during year	..	..	—
Total accommodation (Adults) at end of year			450

Defects.	Found.	Remedied.
Cleansing .. .. .	14	14
Dirty Bedding .. .. .	1	1
Overcrowding .. .. .	2	2
Occupied contrary to Byelaws .. .. .	1	1
Ventilation improved .. .. .	2	2
Water Closets .. .. .	5	5
Drainage .. .. .	4	4
Accumulations .. .. .	4	4
Other Contraventions .. .. .	11	11



Inspections have been regularly made of the premises during the year, and it was necessary to serve notices in 25 instances requiring the remedy of contraventions under the Byelaws. In 12 cases, it was necessary to ask for houses to be discontinued as Houses Let in Lodgings, on account of the buildings being unsuitable for occupation by more than one family.

### ATMOSPHERIC POLLUTION.

#### Emission of Smoke from Industrial Chimneys.—1931.

TABLE I.

No. of Boilers.	No. of Observations.	Dense Black Smoke.—Minutes in the Half-Hour.											
		Nil	$\frac{1}{2}$	1	2	3	4	5	5-10	10-15	15-20	20-25	25-30
1	24	16	2	5	—	—	—	—	1	—	—	—	—
2	5	2	—	1	—	—	—	—	—	—	—	2	—
3	14	8	1	2	1	1	—	1	—	—	—	—	—
4	9	6	2	—	1	—	—	—	—	—	—	—	—
7	3	1	—	1	—	—	1	—	—	—	—	—	—
Total	55	33	5	9	2	1	1	1	1	—	—	2	—

TABLE II.

Year.	No. of Observations.	Dense Black Smoke.—Minutes in the Hour.—Percentage.													
		Nil	1	2	3	4	5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40
1923	257	34·6	11·2	7·3	5·8	6·6	7·7	11·6	5·0	4·2	3·5	1·1	8·3	0·3	—
1924	740	44·7	10·4	7·1	7·0	5·1	4·8	10·6	6·0	2·4	0·8	0·4	0·2	—	—
1925	318	52·2	12·2	10·6	9·6	3·4	3·4	5·0	1·5	0·6	0·9	—	—	—	—
1926	315	48·6	14·6	5·7	4·1	4·1	2·2	13·7	1·9	1·5	1·5	0·9	—	0·3	0
1927	925	57·9	9·5	8·6	2·2	5·4	0·2	8·8	4·7	0·6	1·2	0·1	0·3	—	—
1928	532	77·1	6·0	5·2	2·4	2·8	0·9	2·6	1·8	0·3	0·5	—	—	—	—
1929	76	59·21	5·26	13·1	6·6	2·6	2·6	—	—	—	—	—	—	—	—
1930	93	65·59	2·15	9·7	4·3	4·3	1·1	6·5	4·3	—	3·2	1·1	—	—	—
1931	55	60·00	16·36	3·63	1·81	1·81	1·81	1·81	—	—	3·63	—	—	—	—

TABLE III.  
MONTHLY RECORD OF SOOT DEPOSITS IN  
STANDARD GAUGES, 1931.

Month.	Tons of Total Solids per Square Mile.	
	Northgate Station.	Clarence Park Station.
January .. ..	25·46	7·71
February .. ..	22·63	7·01
March .. ..	17·96	5·26
April .. ..	30·42	12·91
May .. ..	19·26	8·82
June .. ..	21·89	10·53
July .. ..	20·36	9·92
August .. ..	16·73	8·62
September .. ..	19·22	7·84
October .. ..	17·29	7·38
November .. ..	23·62	11·47
December .. ..	16·93	6·71
Average per Month	20·98	8·58

During the year 1931, it was necessary to serve 1 Notice of Offence under the Public Health (Smoke Abatement) Act, 1926, regarding the emission of Black Smoke and 2 Notices of Offence, regarding the emission of Dense Smoke. Further observations were made of the chimneys offending, and it was found that steps had been taken to prevent a recurrence of the nuisance.

Facilities were again available for Stokers to attend a course of Lectures on Boiler Efficiency and Smoke Abatement at the Technical College during the year. Two courses, first and second year, were given by Mr. E. Dickenson, M.I.M.E. A total of 26 students were enrolled, 15 in the first year, and 11 in the second year course. An examination consisting of written and oral tests, and also a practical test in a boiler house, was held on the completion of the courses, and 8 students received Certificates of efficiency which were also endorsed on behalf of the West Riding Regional Smoke Abatement Committee.

## MILK SUPPLY.

**Registration of Cowkeepers, etc.**

Cowkeepers and Milk Purveyors resident in the City 19

Milk Purveyors resident in the City .. .. 149

Milk Purveyors from districts outside the City .. 33

No Cowkeepers were added to the Register during 1931.

1 Cowkeeper discontinued business during 1931.

36 Milk Purveyors were added to the Register during 1931.

35 Milk Purveyors discontinued business during 1931.

The following defects were remedied at Dairies and Cowsheds during 1931 :—

**Dairies.**

Defects.	Found.	Remedied.
Cleansing .. ..	10	10
No Name on Churn.. ..	4	4
Other Contraventions .. ..	3	3
Dairy Re-constructed .. ..	3	3
Floor .. ..	1	1
Ventilation .. ..	1	1
Accumulation of other Articles ..	1	1
No Covers to Receptacles .. ..	1	1

**Cowsheds.**

Defects.	Found.	Remedied.
Cleansing .. ..	5	5
Dirty Milking Stool.. ..	1	1
Dirty Floors .. ..	1	1
Accumulation of Manure .. ..	1	1
Choked Drain .. ..	1	1
Roof .. ..	1	1
Manure Receptacle .. ..	1	1
Cesspool .. ..	1	1



The Cowsheds and Dairies have been carefully supervised during the year, and the steady improvement in the production and distribution of milk in the City continues to be maintained.

The number of Milch Cows in the City showed a slight increase on the previous year, as also did the quantity of milk sold. A census of the quantity sold in the City was taken during the year, and this revealed a total of 2,518 gallons of milk being disposed of daily, and this figure equals a consumption of 0·35 parts of a pint per head of the population. It is interesting to note that the average daily quantity of milk consumed per head of the population has not varied during the past nine years. A similar census taken in the years 1923 and 1928, showed that the average daily consumption of milk was 0·32 and 0·28 parts of a pint respectively. It is also found that out of the total of 2,518 gallons sold in the City per day, only 692 gallons are produced at premises within the City Boundary.

### BACTERIOLOGICAL EXAMINATION OF MILK.

During 1931, 23 samples of Milk were taken in the City, and were bacteriologically examined at the County Hall Laboratory. The following Table gives a summary of the results of the examination as regards bacterial content.

Total Bacteria in I c.c.	Number of Samples.
Under 5,000 .. .. .	7
5,000 and under 10,000 .. .. .	—
10,000 and under 50,000 .. .. .	8
50,000 and under 100,000 .. .. .	2
100,000 and under 500,000 .. .. .	6
500,000 and under 1,000,000 .. .. .	—
1,000,000 and under 2,000,000 .. .. .	—
2,000,000 and under 3,000,000 .. .. .	—

### Sediment in Milk.

Parts per 100,000.	Total Samples.	Produced in City.	Produced outside.
0—1	35	11	24
1—2	7	1	6
Total ..	42	12	30

The above figures show that 83 per cent. of the samples contained less than 1 part of sediment per 100,000, and that 100 per cent. contained less than 2 parts per 100,000.

The figures further indicate that the production of a clean milk supply continued to receive the attention of Dairymen and Cowkeepers, both inside and outside the City Boundary.

### Quality of Milk.

91 samples of New Milk were examined by the City Analyst for quality and 7 (7·8 per cent.) were reported as adulterated.

This percentage is slightly higher than that for England and Wales for 1930. (6·6 per cent.).

### Composition of Milk Samples taken during 1931.

Month.	Number of Samples.	Average Fat.	Average Non-fatty solids.
January .. ..	5	3·49	8·94
February .. ..	3	3·27	8·85
March .. ..	14	3·73	8·94
April .. ..	12	3·58	8·80
May .. ..	7	3·65	8·95
June .. ..	5	3·62	9·10
July .. ..	10	3·47	9·02
August .. ..	4	3·41	9·07
September .. ..	8	3·87	8·91
October .. ..	4	4·09	9·06
November .. ..	8	3·80	8·92
December .. ..	6	3·58	8·94
Whole Year ..	86	3·69	8·95

### The Milk (Special Designations) Order, 1923.

Number of Licences in operation during 1931 .. .. 7

One Licence is to retail Certified Milk, and in the remaining 6 cases, the licence is to retail Grade "A" Milk.

All the milk sold under the Milk (Special Designations) Order is produced outside the City.

Grade "A" (Tuberculin Tested) Milk is supplied to both Municipal Hospitals in the City.

## ANALYSIS OF FOOD AND DRUGS.

## (a) Samples Taken.

Nature of Article.	Total.	Number of Samples taken for Analysis.		Number found Adulterated.		Percentage Adulterated.	
		Informal.	Formal.	Informal.	Formal.	Informal.	Formal.
New Milk (Quality) ..	83	—	83	—	7	—	8.47
New Milk (Cleanli- ness) .. ..	42	—	42	—	—	—	—
Grade " A " Milk ..	2	—	2	—	—	—	—
Certified Milk ..	1	1	—	—	—	—	—
Sterilized Milk ..	4	—	4	—	—	—	—
Grade " A " " TT " Milk .. ..	1	—	1	—	—	—	—
Condensed Milk ..	2	2	—	—	—	—	—
Dried Milk .. ..	2	2	—	—	—	—	—
Ammoniated Tincture of Quinine	1	1	—	—	—	—	—
Arrowroot .. ..	1	1	—	—	—	—	—
Baking Powder ..	2	2	—	—	—	—	—
Butter .. ..	2	2	—	—	—	—	—
Blancmange Powder	1	1	—	—	—	—	—
Boric Ointment ..	1	1	—	—	—	—	—
Cheshire Cheese ..	1	1	—	—	—	—	—
Corn Flour .. ..	1	1	—	—	—	—	—
Camphorated Oil ..	2	2	—	—	—	—	—
Cod Liver Oil Emulsion .. ..	1	1	—	—	—	—	—
Coffee .. ..	2	2	—	—	—	—	—
Castor Oil .. ..	1	1	—	—	—	—	—
Cream of Tartar ..	2	2	—	—	—	—	—
Cream .. ..	10	9	1	1	1	11.11	100.00
Compound Liquorice Powder .. ..	1	1	—	—	—	—	—
Dripping .. ..	1	1	—	—	—	—	—
Dripping (Beef) ..	2	2	—	—	—	—	—
Egg Powder .. ..	1	1	—	—	—	—	—
Epsom Salts .. ..	1	1	—	—	—	—	—
Glauber Salts .. ..	1	1	—	—	—	—	—
Ground Ginger ..	1	1	—	—	—	—	—
Glycerine .. ..	1	1	—	—	—	—	—
Green Peas .. ..	1	1	—	—	—	—	—
Carried forward ..	175	42	133	1	8	—	—



Nature of Article.	Total.	Number of Samples taken for Analysis.		Number found Adulterated.		Percentage Adulterated.	
		Informal.	Formal.	Informal.	Formal.	Informal.	Formal.
Brought forward..	175	42	133	1	8	—	—
Glycerine & Borax	1	1	—	1	—	100·00	—
Honey .. ..	1	1	—	—	—	—	—
Ice Cream .. ..	2	2	—	—	—	—	—
Jelly .. ..	1	1	—	—	—	—	—
Jam .. ..	2	2	—	—	—	—	—
Lemonade Powder ..	2	2	—	—	—	—	—
Lard .. ..	1	1	—	—	—	—	—
Lemon Cheese ..	1	1	—	—	—	—	—
Lemon Squash ..	1	1	—	—	—	—	—
Margarine .. ..	1	1	—	—	—	—	—
Mince Meat .. ..	1	1	—	—	—	—	—
Malt Vinegar ..	1	1	—	—	—	—	—
Malt with C.L.O.							
Emul. .. ..	1	1	—	—	—	—	—
Milk of Sulphur ..	1	1	—	—	—	—	—
Olive Oil .. ..	1	1	—	—	—	—	—
Potted Meat ..	1	1	—	1	—	100·00	—
Polony .. ..	1	1	—	—	—	—	—
Potted Salmon ..	1	1	—	—	—	—	—
Pepper (White) ..	1	1	—	—	—	—	—
Paregoric .. ..	1	1	—	—	—	—	—
Rice, Ground ..	1	1	—	—	—	—	—
Sweet Spirits of							
Nitre .. ..	4	3	1	2	—	66·66	—
Sauce .. ..	2	2	—	—	—	—	—
Self Raising Flour ..	1	1	—	—	—	—	—
Sausages (Beef) ..	1	1	—	—	—	—	—
Sausages (Pork) ..	3	3	—	—	—	—	—
Suet .. ..	1	1	—	—	—	—	—
Sweets .. ..	1	1	—	—	—	—	—
Seidlitz Powder ..	1	1	—	—	—	—	—
Sultanas .. ..	1	1	—	—	—	—	—
Sponge Cake ..	2	2	—	—	—	—	—
Tea .. ..	2	2	—	—	—	—	—
Tinned Fruit ..	1	1	—	—	—	—	—
Tinned Fish ..	1	1	—	1	—	100·00	—
Wine, Non-Alcoholic	1	1	—	—	—	—	—
Fresh Eggs .. ..	1	1	—	—	—	—	—
Total ..	222	87	133	6	8	6·9	4·5

## (b) Particulars of Adulterated Samples.

No.	Article.	Defects.	Action taken.
102	Sweet Spirits of Nitre.	15·5 per cent. deficiency of Nitrous Ether.	Follow up Sample No. 103, taken and found to be genuine.
120	New Milk ..	1·3 per cent. deficiency of Milk Fat ..	Follow up Sample No. 130, taken and found to be genuine.
129	New Milk ..	Deficiency of Non-Fatty Solids equal to 1·4 parts per cent. added water.	Follow up Sample No. 53, taken and found to be genuine.
9	New Milk ..	12·7 per cent. deficiency of Milk Fat ..	Follow up Sample No. 103, taken and found to be genuine.
22	New Milk ..	8 per cent. deficiency of Milk Fat ..	Follow up Sample No. 110, taken and found to be genuine.
49	Cream ..	Sample entirely composed of "Artificial Cream," made of butter fat, water and dried milk.	Formal follow up Sample No. 54, taken and found to be "Artificial Cream."
54	Cream ..	Consisted entirely of "Artificial Cream," made by a mixture of butter fat, water and dried milk.	Proceedings taken. Information under Sale of Food and Drugs Adulteration Act. Dismissed. Information under Artificial Cream Act, and Merchandise Act. Dismissed under Probation Act, on payment of Costs, totalling £3 14s. 6d.
64	Potted Meat ..	4·3 per cent. deficiency of Meat Solids ..	Town Clerk wrote for explanation. Satisfactory explanation received.
73	Glycerine and Borax.	Boracic Acid substituted for Borax ..	Town Clerk wrote for explanation. Satisfactory explanation received.

No.	Article.	Defects.	Action taken.
84	Tinned Fish ..	Contained 2·1 grains of tin per pound ..	Town Clerk wrote warning Vendor.
112	New Milk ..	5 per cent deficiency of Milk Fat ..	Follow up Sample No 119, taken and found to be genuine.
114	New Milk ..	Deficiency of Non-Fatty Solids equal to 1·8 per cent. of added water.	Follow up Samples Nos. 2 and 4, taken and found to be genuine. Town Clerk wrote Vendor asking for explanation.
119	New Milk ..	2 per cent. deficiency of Milk Fat ..	Reported to Local Authority where milk was produced.

### Slaughterhouses.

The following Table shows particulars of all private slaughterhouses in the City at the end of 1931 :—

	Number of Slaughterhouses.
Registered .. ..	8
Licensed .. ..	15
Total .. ..	23

The above figures do not include the Public Slaughterhouse owned by the Corporation.

All the Slaughterhouses have been kept in a satisfactory condition throughout the year, and it was not necessary to draw attention to any contravention of the Byelaws regulating them.

The requirements of the Public Health (Meat) Regulations 1924, have been strictly enforced, and it was necessary to draw attention to the following infringements :—



Stall not bearing Name and Address	..	3
Stall not Screened	.. .. .	1

Special attention was also given to the hygienic requirements of butchers' shops and stalls, and it is found that the modern tendency is for greater activity to be displayed in this direction.

#### Number of Animals Slaughtered in the City during 1931.

	Beasts.	Calves.	Pigs.	Sheep.	Total.
Public Slaughterhouse ..	2716	179	2813	5902	11,610
Private Slaughterhouses ..	1989	83	4512	3280	9,864
Total for Year ..	4605	262	7325	9182	21,474

#### Condemnations of Unsound Food.

850 Meat .. .. . Weighing 8,373 stones.  
 7 Fish .. .. . „ 10 st. 6 lbs.  
 1 Shell Fish (Mussels).  
 46 Crabs.  
 12 Tinned goods. 218 Tins.  
 1 Fruit .. .. . Weighing 4 stones.  
 320 Eggs.

#### Where Condemnations made.

4 Railway Yards. 15 Shops.  
 2 Private Vehicles. 5 Warehouses.  
 710 Borough Slaughterhouse. 4 Borough Market.  
 494 Private Slaughterhouse. 13 Cold Stores.

**Number of Carcases Condemedned.****Condemnations due to Tuberculosis.**

Animals.	Whole Carcases.		Part Carcases.	
	Boro. Slaughter- House.	Private Slaughter- house.	Boro. Slaughter- house	Private Slaughter- house.
Cows .. ..	*117	13	†21	8
Heifers .. ..	6	1	1	—
Bullocks .. ..	5	—	1	—
Calves .. ..	—	—	—	—
Bulls .. ..	3	—	—	—
Pigs .. ..	19	12	—	—
Sheep .. ..	1	—	—	—
Total ..	151	26	23	8

\* Including 42 animals slaughtered under Tuberculosis Order, 1925, from Districts outside Wakefield, and 2 animals inside the City.

† Including 1 animal slaughtered under Tuberculosis Order, 1925, from District outside Wakefield.

**Condemnations due to Other Defined Diseases.**

Animals	Whole Carcases.		Part Carcases.	
	Boro Slaughter- house.	Private Slaughter- house.	Boro. Slaughter- house.	Private Slaughter- house.
Cows .. ..	4	—	9	—
Heifers .. ..	1	—	—	—
Bullocks .. ..	2	—	—	—
Sheep .. ..	31	2	8	2
Calves .. ..	4	—	—	1
Pigs .. ..	14	1	1	1
Total ..	56	3	18	4

**Condemnation of Offals.**

Animals.	Tuberculosis.				Other Conditions.			
	Boro. Sl. House.		Priv. Sl. House.		Boro. Sl. House		Priv. Sl. House	
	Condem- nation.	Weight Sts.	Condem- nation.	Weight Sts.	Condem- nation.	Weight Sts.	Condem- nation.	Weight Sts.
Bovines ..	339*	491	121	174	397	165	75	49
Sheep ..	—	—	—	—	20	6	6	2
Calves ..	—	—	—	—	—	—	—	—
Pigs ..	202	164	259	211	26	9½	50	21
Totals ..	541	655	380	385	443	180½	131	72

\* This figure includes 80 stones of Offals from animals slaughtered under Tuberculosis Order, 1925, giving a gross weight of 80 stones, from districts situate outside the City.

	1930.	1931.
Percentage of Condemnations due to Tubercular Disease .. .. .	60.49	66.29
Percentage of Bovines affected with Tubercular Disease .. .. .	12.19	13.80
Percentage of Pigs affected with Tubercular Disease .. .. .	6.12	6.70
Percentage of all animals slaughtered in the City affected with Disease .. ..	8.66	7.20
Percentage of all animals slaughtered in Private Slaughter Houses affected with Disease .. .. .	5.68	5.50
Percentage of all animals slaughtered in Borough Slaughter House affected with Disease .. .. .	10.87	10.6

A slight increase took place in the total number of animals slaughtered during the year, mainly consisting of Pigs and Sheep, whereas beasts showed a decline.

**Rag Flock Acts, 1911 and 1928.**

During the year 4 samples of Rag Flocks were obtained and submitted for analysis under the Rag Flock Acts.



The Analyst reported that 3 of the samples were satisfactory and one was unsatisfactory.

The unsatisfactory sample contained Chlorine in excess of the standard allowed by the Act, but on making investigations into the matter, it was ascertained that the material supplied was not subject to the provisions of the Act, and no further action was taken in regard to same.

## OFFENSIVE TRADES.

### Offensive Trades on the Register at end of 1931.

Trade.							Number.
Tripe Boiling	..	..	..	..	..	..	5
Tallow Melting	..	..	..	..	..	..	1
Gut Scraping	..	..	..	..	..	..	2
Rag and Bone Dealing	..	..	..	..	..	..	4
Fish Frying	..	..	..	..	..	..	65
Total							77
Offensive Trades taken off Register during 1931							1
Offensive Trades put on Register during 1931							3

Defects.	Found.	Remedied.
Choked Drains	1	1
Cleansing	14	14
Accumulations	2	2
Refuse Receptacles	5	5
Structural	2	2
Cleaning Room provided (Fish Fryer)	1	1
Flue Re-constructed (Fish Fryer)	1	1
Yards paved or improved	1	1

Regular Inspections have been made of the Offensive Trade premises during the year, and all the businesses have been conducted in a satisfactory manner.

ANNUAL REPORT on the Administration of the Factory and Workshops Act, 1901, in connection with :—

## FACTORIES, WORKSHOPS AND WORKPLACES.

### 1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. 1	Number of		
	Inspections. 2	Written Notices. 3	Occupiers Prosecuted. 4
Factories (including Factory Laundries) ..	11	5	—
Workshops (including Workshop Laundries) ..	203	18	—
Workplaces (other than Outworkers' premises)	25	3	—
Total .. .. .	239	26	—

### 2.—Defects found in Factories, Workshops and Workplaces.

Particulars.  1	Number of Defects.			Number of Offences in respect to which Prosecutions were Instituted. 5
	Found. 2	Remedied. 3	Referred to H.M. Inspector. 4	
Nuisances under the Public Health Acts :—				
Want of Cleanliness .. .. .	10	10	—	—
Choked Drains .. .. .	1	1	—	—
Floors .. .. .	1	1	—	—
Walls .. .. .	1	1	—	—
Other Nuisances				
Sanitary accommodation. { insufficient .. .. .	5	5	—	—
{ unsuitable or defective .. .. .	7	7	—	—
{ Not separate for sexes .. .. .	3	3	—	—
Underground bakehouse vacated .. .. .	1	1	—	—
Total .. .. .	29	29	—	—

### 3.—Outwork in Unwholesome Premises, Section 108.

Nil.

## REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the Year.						Number.
Bakehouses (Factories) .. .. .	..	..	..	..	..	10
Bakehouses (Workshops) .. .. .	..	..	..	..	..	41
Dressmaking .. .. .	..	..	..	..	..	8
Saddlery .. .. .	..	..	..	..	..	2
Boot Repairing .. .. .	..	..	..	..	..	14
Millinery .. .. .	..	..	..	..	..	2
Upholstery .. .. .	..	..	..	..	..	6
Tailoring .. .. .	..	..	..	..	..	8
Joinery .. .. .	..	..	..	..	..	7
Other Workshops .. .. .	..	..	..	..	..	46
Total ..						144

During the year 5 Notices were received from H.M. Inspector of Factories regarding the following :—

Defects.	Found.	Remedied.
Insufficient Closet Accommodation	4	4
Insufficient Ventilation .. .. .	3	3

## HOUSING.

## (a) Statistics.

## Number of New Houses erected during 1931.

Size of House according to number of Habitable Rooms.	Total.	Built by Corporation.	Built by Private Enterprise
3 roomed .. .. .	44	44	—
4 „ .. .. .	301	301	—
5 „ .. .. .	27	22	5
6 „ .. .. .	17	—	17
7 „ and over .. .. .	6	—	6
Total ..	395	367	28



The number of New Houses erected in each of the Wards is as follows :—

Alverthorpe .. ..	7	Eastmoor (Municipal) ..	162
North Westgate		Primrose Hill .. ..	4
(Municipal) .. ..	205	Sandal .. ..	5
South Westgate .. ..	7	St. John's .. ..	5

### 1.—Inspection of Dwelling Houses during the Year.

- (1) (a) Total number of Dwelling Houses inspected for housing defects (under Public Health or Housing Acts) .. .. . 697
- (b) Number of Inspections made for the purpose 1619
- (2) (a) Number of Dwelling Houses included under sub-head (1) above, which were inspected and recorded under the Housing Consolidated Regulations, 1925 .. .. . 355
- (b) Number of inspections made for the purpose 1133
- (3) Number of Dwelling Houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .. .. . 55
- (4) Number of Dwelling Houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation .. .. . 269

### 2.—Remedy of Defects during the Year without Service of Formal Notices.

- Number of defective Dwelling Houses rendered fit in consequence of informal action by the Local Authority or their Officers .. .. . 549

### 3.—Action under Statutory Powers during the Year.

A.—Proceedings under Section 17, 18 and 23 of the Housing Act, 1930 :—

- (1) Number of Dwelling Houses in respect of which Notices were served requiring repairs .. 37
- (2) Number of Dwelling Houses which were rendered fit after service of formal Notices ..
  - (a) By Owners .. .. . 4
  - (b) By Local Authority in default of Owners .. .. . —

## B.—Proceedings under Public Health Acts :—

- |  |    |
|--|----|
| (1) Number of Dwelling Houses in respect of which Notices were served requiring defects to be remedied .. .. . | 58 |
| (2) Number of Dwelling Houses in which defects were remedied after service of formal Notices.                  |    |
| (a) By Owners .. .. .  | 58 |
| (b) By Local Authority in default of Owners .. .. .  | —  |

## C.—Proceedings under Section 19 and Section 21 of the Housing Act, 1930 :—

- |   |   |
|---|---|
| (1) Number of Dwelling Houses in respect of which Demolition Orders were made .. .. . | 3 |
| (2) Number of Dwelling Houses demolished in pursuance of Demolition Orders .. .. .    | — |

## D.—Proceedings under Section 20 of the Housing Act, 1930 :—

- |  |   |
|--|---|
| (1) Number of separate tenements or underground rooms in respect of which Closing Orders were made .. .. .   | — |
| (2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or rooms having been rendered fit .. .. . | — |

## E.—Proceedings under Section 3 of the Housing Act, 1925 :—

- |  |   |
|--|---|
| (1) Number of Dwelling Houses in respect of which Notices were served requiring repairs .. .. .  | 2 |
| (2) Number of Dwelling Houses which were rendered fit after service of formal Notices.   |   |
| (a) By Owners .. .. .  | 2 |
| (b) By Local Authority in default of Owners .. .. .  | — |
| (3) Number of Dwelling Houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of intention to close .. .. . | — |

## F.—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925 :—

- |  |    |
|--|----|
| (1) Number of Dwelling Houses in respect of which Closing Orders were made .. .. . | 43 |
|--|----|

(2) Number of Dwelling Houses in respect of which Closing Orders were determined, the Dwelling Houses having been rendered fit .. ..	1
(3) Number of Dwelling Houses in respect of which Demolition Orders were made .. ..	41
(4) Number of Dwelling Houses demolished in pursuance of Demolition Orders .. ..	16

### Fitness of Houses.

The following list of Defects found in 355 houses inspected in 1931, under the Housing Regulations, will give some indication of their condition. Generally speaking, the houses inspected were of a poor character, but were not situated in insanitary areas :—

Dilapidated .. ..	31	With Water Closet	
Damp .. ..	254	Defects .. ..	192
With Defective Lighting	36	With Tub Closets or	
With Defective Ventilation .. ..	246	Privies .. ..	2
Dirty .. ..	34	With Ashbin or Ash-	
Overcrowded .. ..	11	place Defects .. ..	136
With Drain or Sink		With Yard Surface	
Defects .. ..	176	Defects .. ..	223
No Washing Accommodation .. ..	17	With Other Nuisances	
Unsatisfactory Food Store	44	or Defects .. ..	292

With the exception of 4 instances, all the houses in the City have water laid on, and only 48 houses are without water closets.

In addition to the houses inspected and recorded under the Housing Consolidated Regulations, 1925, a further total of 92 houses were also inspected in the New Street Area.

Arising out of this inspection official representation was made under Section 51 (2) of the Housing Act, 1930, on the 14th July, 1931, in connection with 89 Dwelling Houses, and were dealt with as clearance areas. The remaining three houses are being dealt with by Demolition Orders under Sections 19 and 20 of the Act.

The 89 dwelling houses comprised six clearance areas, and consisted of the following :—



No. 1 Area	..	..	..	67 Houses.
No. 2 Area	..	..	..	3 Houses.
No. 3 Area	..	..	..	4 Houses.
No. 4 Area	..	..	..	8 Houses.
No. 5 Area	..	..	..	4 Houses.
No. 6 Area	..	..	..	3 Houses.

The City Council on the 6th February, 1932, made Orders in respect of each of the areas referred to.

It will be observed that out of a total of 355 houses inspected under the Housing Consolidated Regulations, 1925, 55 were found to be unfit for human habitation. The houses are situate outside insanitary or clearance areas, and owing to the difficulty arising from the absence of re-housing accommodation, it has not been possible to take any action in regard to these properties. The condition of the 55 houses referred to is such as to make them not capable of being made fit at a reasonable expense. It will further be noticed that 16 houses have been demolished during the year as a result of Closing and Demolition Orders made under the Housing Act, 1925. Here again the progress made in the demolition of unfit houses has been extremely slow mainly due to the occupiers being unable to secure alternative accommodation.

At the end of 1931, 25 Demolition Orders made under the Act of 1925, still remained to be completed, 18 of these comprised properties, situate in Sunderland Yard, Kirkgate. The slow rate of progress will be appreciated when it is pointed out that the Demolition Orders in the case of Sunderland Yard properties were made in October, 1930, and at the end of 1931, six houses were still occupied. At the time of writing, however, all the dwelling houses in Sunderland Yard have been vacated, and it is expected at an early date, that the houses will be demolished.

WM. ROBERTS.

# PREVALENCE OF, AND CONTROL OVER INFECTIOUS DISEASES.

## Notification of Infectious Diseases, 1931.

DISEASE.	Number of Cases Notified.													Number of Deaths.													
	At all Ages.	Under 1 yr.	1—2 yrs.	2—3 yrs.	3—4 yrs.	4—5 yrs.	5—10 yrs.	10—15 yrs.	15—20 yrs.	20—35 yrs.	35—45 yrs.	45—65 yrs.	65 & Over.	Removed to Hospital.	At all Ages.	Under 1 yr.	1—2 yrs.	2—3 yrs.	3—4 yrs.	4—5 yrs.	5—10 yrs.	10—15 yrs.	15—20 yrs.	20—35 yrs.	35—45 yrs.	45—65 yrs.	65 & Over.
Ex .. ..																											
ria, including																											
praneous Croup	148		4	6	9	9	62	34	5	12	4	2	1	140	24		1	1	1		12	5					1
las .. ..	36				1				1	6	7	10	11	15													
Fever .. ..	263	2	8	9	17	25	110	47	14	26	5			204	2			2									
Fever .. ..																											
Fever .. ..	6						2	1		2	1			3													
ng Fever ..																											
ed Fever ..																											
al Fever ..	3									2	1			3	1									1			
al Pyrexia ..	12									10	2			8													
-Spinal ..																											
gitis .. ..	3							2	1					3	2							1	1				
relitis .. ..																											
mia Neonatorum	8	8												4													
Pneumonia ..	124	5	4	6	3	4	15	3	5	21	15	28	15	56	62	14	3	2		2	1	1	2	3	6	14	14
al Pneumonia ..	10	1					1			3	2	2	1	2	1	1											
ry .. ..	7									1	1	4	1	7													
ary Tuberculosis	56						2	4	5	17	12	15	1		46			1				1	3	10	10	21	
monary Tuber-																											
s .. ..	21	2			2	2	5	5	2	1	1	1		3	11		1		1	1		3		3	1	1	
.. ..	366	23	52	53	104	134									7		5	2									
ng Cough ..	32	6	10	2	7	7									6	3	1		1		1						
olio-Encephalitis																											
ncephalitis ..																											
rgica .. ..																											
isoning, ..																											
gus Neona-																											
... ..	1	1																									
Totals ..	1097	46	80	76	143	181	197	97	33	101	51	62	30	448	162	18	11	11	3	3	14	11	6	17	17	37	14

### Diphtheria.

148 cases of Diphtheria were notified (63 males and 85 females), giving an attack rate of 2·52, as compared with 0·99 in 1930, and 0·84 the average for the past 10 years. There were 90 more cases than in 1930. The cases occurred in the Wards as follows :—

Sandal	..	24	Primrose Hill	15	Calder	..	6
Belle Vue	..	23	Eastmoor	..	South Westgate	..	4
North Westgate	22		Kirkgate	..	Alverthorpe	..	3
St. John's	..	19	Northgate	..	Fever Hospital	..	*1

\* The case which occurred in the City Fever Hospital was a maid who had just commenced duty.

The numbers of cases notified monthly were as follows :—

Jan.	5	} 1st Qtr.—26	July	19	} 3rd Qtr.—33
Feb.	12		Aug.	4	
March	9		Sept.	10	
April	19	} 2nd Qtr.—44	Oct.	12	} 4th Qtr.—45
May	14		Nov.	8	
June	11		Dec.	25	

The number of cases in the various age periods was as follows :—

Under 1 year	..	..	—	10—15 years	..	..	34
1—2 years	..	..	4	15—20 years	..	..	5
2—3 years	..	..	6	20—35 years	..	..	12
3—4 years	..	..	9	35—45 years	..	..	4
4—5 years	..	..	9	45—65 years	..	..	2
5—10 years	..	..	62	65 years and over	..	..	1

140 cases (95 per cent.) were removed to Hospital (138 to the City Fever Hospital and 2 to Carr Gate Hospital).

There were 24 deaths from Diphtheria, giving a case mortality of 16 per cent., and a death rate of 0·43 per 1,000 of the population, as compared with 0·07 in 1930, and 0·05 the average for the past 10 years. The corresponding rate in England and Wales in 1931 was 0·07, and in the Great Towns, 0·08.

The deaths occurred in the following age groups :—

1—2 years	..	..	1	5—10 years	..	..	12
2—3 years	..	..	4	10—15 years	..	..	5
3—4 years	..	..	1	45—65 years	..	..	1

The deaths were distributed pretty evenly over the year, with the exception of August, when none occurred. The highest monthly number (5) occurred in July. Of the deaths, 20 occurred in the Fever Hospital, 1 in the County Hospital, 2 at home, and 1 outside the City.

### Scarlet Fever.

263 cases of Scarlet Fever were notified (110 males and 153 females), giving an attack rate of 4·45 per 1,000, as compared with 2·55 in 1930, and 2·73 the average for the past 10 years.

There were 112 more cases than in 1930. The cases occurred in the Wards as follows :—

North Westgate	38	Northgate	21	Kirkgate	18
Primrose Hill	37	South Westgate	19	Alverthorpe	17



Sandal	34	St. John's	19	Calder	9
Eastmoor	32	Belle Vue	19		

The number of cases notified monthly was as follows :—

Jan.	14	} 1st Qtr.—35	July	23	} 3rd Qtr.—55
Feb.	7		Aug.	10	
March	14		Sept.	22	
April	13	} 2nd Qtr.—35	Oct.	28	} 4th Qtr.—138
May	7		Nov.	55	
June	15		Dec.	55	

The number of cases in the various age groups was as follows :—

Under 1 year	2	} Under 5 years—61	5—10 years	110
1—2 years	8		10—15 years	47
2—3 years	9		15—20 years	14
3—4 years	17		20—35 years	26
4—5 years	25		35—45 years	5

204 cases (78 per cent.) were removed to Hospital (197 to the City Hospital and 7 to Carr Gate Hospital).

There were 2 deaths, giving a case mortality of 0·8 per cent. and a death rate of 0·04 per 1,000 of the population, as compared with 0·02 in 1930, and 0·01 the average for the past 10 years.

The corresponding rate in England and Wales in 1930 was 0·01 and in the Great Towns 0·01.

There were 16 Return Cases (6·1 per cent.) relating to 11 Hospital cases (5·9 per cent. of discharges) discharged from the Hospital. There were also 22 secondary cases.

### Scarlet Fever and Home Conditions.

Of the 216 ordinary dwellings invaded, 52 had less than 1 person per room, 127 had between 1 and 2 persons per room, and 37 had more than 2 persons per room. 17 per cent. of the houses were overcrowded according to the standard of the Registrar-General, as compared with 4·6 in 1930.

Home	{	Under 14 years—285 (Susceptibles, 248).
Contacts		Over 14 years—602 (Susceptibles, 501).

Amongst the 248 susceptible contacts under 14 years of age, there occurred 13 return cases and 16 secondary cases. Amongst the 501 susceptible contacts over 14 years of age, there occurred 3 return cases and 6 secondary cases.

Houses with Secondary Cases	Under 1 person per room	..	3
	1—2 persons per room	..	15
	Over 2 persons per room	..	4
Houses with Return Cases	Under 1 person per room	..	—
	1—2 persons per room	..	14
	Over 2 persons per room	..	2

As in previous years, these figures do not indicate any relationship between overcrowding and the domiciliary spread of Scarlet Fever.

### Enteric Fever.

6 cases of Enteric Fever were notified, but in 3, the diagnosis was not confirmed after further observation in hospital (1 tuberculous meningitis, 1 appendicitis, and 1 indefinite). There were 3 definite cases, giving an attack rate of 0·05 per 1,000, as compared with 0·22 in 1930, and 0·16 the average for the past 10 years. There were no deaths.

The following are the particulars of the cases:—

No.	Sex.	Age.	Home address.	Where Isolated.	Bacteriological Report	Date.
1	M.	8	Lupset Crescent ..	At home ..	B. Typh- osus. B. Para- typhosus A. & B.	Jan.
2	F.	7	Fryergate, New Scarborough.	Fever Hospital	B. Typh- osus. B. Para- typhosus B.	June.
3	M.	27	Regent Street, New Scarborough.	At home ..	B. Typh- osus.	Oct.

### Pneumonia.

134 cases of Pneumonia were notified (124 Primary and 10 Influenzal), 49 in the first quarter of the year, 35 in the second, 18 in the third, and 32 in the fourth quarter. Of the notified cases, 21 died. There were 41 deaths from Pneumonia where the illness had not been notified.

### Dysentery.

There were 7 cases of Dysentery notified, all patients in the West Riding Mental Hospital. There were no deaths.

### Measles.

366 cases of Measles (all children under 5 years, and all first cases in the household) were notified, as compared with 73 in 1930, and 350 in 1929. 30 cases were notified in the first quarter, 160 in the second, 129 in the third, and 47 in the fourth. In addition, 47 children under 5 years of age, and 172 over 5 years, were notified through the schools, and 201 cases were ascertained otherwise. There were 7 deaths from Measles, giving a death rate of 0·12 per 1,000, as compared with 0·12 in 1930, and 0·12 the average for the past 10 years. The immediate causes of death were :—Pneumonia (6 cases), and Bronchitis (1 case). 5 deaths occurred in the second year of life, and 2 in the third.

### Whooping Cough.

32 cases of Whooping Cough were notified (all children under 5 years of age, and all first cases in the household), as compared with 50 in 1930. 14 cases were reported from the schools and 35 were ascertained otherwise. There were 6 deaths from Whooping Cough (3 under 1 year, 1 aged 1 year, 1 aged 3 years, and 1 aged 5 years), giving a death rate of 0·11 per 1,000 as compared with 0·09 in 1930, and 0·10 the average for the past 10 years. The immediate causes of death were :—Pneumonia (3 cases), Convulsions (2 cases), and Bronchitis (1 case).

### Pemphigus Neonatorum.

1 case of this disease (which became notifiable on the 10th June, 1930) was notified during 1931.

### Cerebrospinal Fever.

3 cases of Cerebrospinal Fever were notified during the year, and in addition, 1 case died at home before the diagnosis was definitely confirmed, and was therefore not notified. The following are the particulars of the cases :—

Date Notified.	Sex.	Age.	Home Address.	Where Treated.	Result.
11/7/31	M.	12	Thornhill Street ..	County Hospital	Recovered.
—	M.	13	Thornes Lane ..	—	Died 19/7/31.*
24/7/31	M.	13	Denby Dale Road ..	Fever Hospital	Discharged 17/8/31
29/7/31	M.	18	Arundel Street ..	Fever Hospital	Recovered. Died 30/7/31.

\* Meningococci found after death. Not notified.

There was no apparent association of any kind between these cases.



## INFECTIOUS DISEASES HOSPITAL.

Disease.	No. of Cases in Hospital at beginning of year.	No. of Cases admitted.	No. of Cases under treatment.	No. of Cases Discharged	No. of Deaths	Mortality percentage	No. of Cases remaining end of year.
Scarlet Fever	19	197	216	186	2	1.06	28
Diphtheria ..	10	133	143	100	20	16.53	22
Typhoid Fever	—	2	2	2	—	—	—
Diphtheria Carriers ..	—	4	4	4	—	—	—
Cerebrospinal Fever ..	—	2	2	1	1	50	—
Tuberculous Meningitis ..	—	1	1	—	1	100	—
Measles ..	—	3	3	3	—	—	—
For observa- tion .. ..	1	5	6	6	—	—	—
Totals ..	30	347	377	302	24	7.34	50

During 1931, the number of admissions to the Hospital was 143 more than in 1930. The maximum number of patients in the Hospital was 53 (December), the minimum 16 (October), and the average 30.

### Scarlet Fever.

The maximum number of cases in the Hospital was 38 (December), the minimum 9 (March and June), and the average 19. The maximum period of stay was 115 days, the minimum 16, and the average 36. 8 cases were admitted on the first day of disease, 73 on the second, 50 on the third, 31 on the fourth, 14 on the 5th, 4 on the 6th, and 9 after the 7th day of disease. In 8 cases, the diagnosis was revised. Complications occurred as follows:—

	On Admission.	After Admission.
Rhinitis .. .. .	20 (10.6%)	8 (4.25%)
Otorrhoea .. .. .	2 (1.06%)	21 (11.17%)
Adenitis .. .. .	14 (7.4%)	22 (11.7%)
Tonsilitis .. .. .	3 (1.59%)	4 (2.12%)
Rheumatism .. .. .	1 (0.53%)	12 (6.38%)
Diphtheria .. .. .	3 (1.59%)	—
Varicella ... .. .	1 (0.53%)	3 (1.59%)
Measles .. .. .	—	10 (5.3%)

The type of disease was similar to that we have experienced for some years past; and most cases were comparatively mild, although ear, throat and nose complications were fairly prevalent. On the other hand, renal complications were altogether absent. The two fatal cases were children between 2 and 3 years of age, affected with the septic variety of the disease.

### Diphtheria.

The maximum number of cases was 23 (December), the minimum 3 (October), and the average 11. The maximum period of stay was 82 days, the minimum 18, and the average 34. 1 case was admitted on the 1st day of disease, 22 on the 2nd, 32 on the 3rd, 35 on the 4th, 27 on the 5th, 6 on the 6th, 2 on the 7th, and 6 after the 7th day of disease. Complications occurred as follows:—

	On Admission.	After Admission.
Rhinitis .. .. .	15 (12.39%)	2 (1.65%)
Otorrhoea .. .. .	1 (0.82%)	2 (1.65%)
Adenitis .. .. .	34 (28.09%)	3 (2.47%)
Albuminuria .. .. .	23 (19%)	3 (2.4%)
Paralysis .. .. .	2 (1.65%)	24 (19.8%)
Heart Complications .. .. .	7 (5.78%)	12 (9.9%)
Serum Rashes .. .. .	—	2 (1.65%)

1,664,000 units of antitoxin were administered to 128 patients (96 per cent.), the maximum dose being 48,000 units, the minimum 6,000 units, and the average 13,000 units.

The type of disease was much more severe than we have experienced for some years past, and the percentage of cardiac, renal and paralytic complications was abnormally high. Of the 20 children who died in Hospital, 9 died from cardiac paralysis, 8 from toxæmia (mostly hæmorrhagic cases), 2 from general paralysis (including paralysis of the respiratory muscles), and 1 from asphyxia (a laryngeal case). There were only 3 cases of laryngeal diphtheria. It was necessary to perform tracheotomy in two cases, with one recovery and one death. The following Table gives the results (recoveries and deaths), according to the day of illness on which the patients were admitted, and confirms the well-established fact that the earlier the patient is treated, the better the chance of recovery.

**Relation of Deaths and Recoveries to the Duration of Illness Prior to Admission.**

Day.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	
Admitted ..	1	19	31	30	23	5	2	4	2	—	1	118
Recovered	1	18	29	21	15	4	2	4	2	—	1	97
Died ..	—	1	2	9	8	1	—	—	—	—	—	21
Mortality (per cent.)	—	5.26	6.45	30	34.78	20.0	—	—	—	—	—	17.79

High as the death rate has been, it does not represent all the damage done by Diphtheria. Many of those who recovered only did so after a serious and critical illness, and with their constitutions much enfeebled.

**Enteric Fever.**

2 patients were admitted as suffering from Enteric Fever. In one case, the diagnosis was revised to appendicitis. The other case was discharged from hospital after a stay of 30 days.

**General.**

The resources of our small hospital were taxed to the utmost in order to deal with the large influx of patients, and we had to resort to many shifts to provide isolation for cases of double infection. The large number of patients and the serious nature of many of the cases of Diphtheria threw a great



responsibility on the Matron (Miss Peck) and her Staff, and I cannot speak too highly of the devoted and self-sacrificing services of every member of the staff. There was naturally a large increase in the ambulance and disinfecting work, which is all carried out from the hospital, and the men concerned had a hard year's work, involving much overtime.

### **Remarks on Infectious Diseases.**

The year under review was distinctly a bad one with regard to infectious disease, for we had severe visitations from Diphtheria, Scarlet Fever and Measles. The epidemic of Diphtheria was particularly noteworthy on account of the enhanced severity of the type of disease, and the excessive mortality which ensued. During the last 45 years, the prevalence of the disease has only exceeded that of 1931 on two occasions, namely in 1914 and in 1900, whilst the death rate from Diphtheria has never quite equalled that of 1931 during all these years. It is true, however, that in the two previous epidemics in 1914 and 1900, the death rate approached closely to that of 1931. After a comparatively peaceful period of 16 years, it was a shock to experience not so much the increased number of cases, which amounted to only two and a half times our usual number, but the increase in the death rate, which amounted to nearly six times the average rate. The case mortality, too, jumped up from an average of about 6 per cent. to 16 per cent. The question naturally arises "How is this serious increase to be accounted for?" There has been no change in local conditions to account for it. From the sanitary point, any changes that have occurred have been for the better. Nor does there appear to be anything significant in the meteorological conditions. Newsholme's contention that increased prevalence of Diphtheria is associated with a low rainfall does not derive any support. Both 1930 and 1931 were years with a high rainfall. In 1921, with an abnormally low rainfall, the prevalence of Diphtheria was also very low. Notification was fairly well carried out, much better than at the time of our last epidemic, when more than half the deaths occurred at home. Earlier notification in many cases would have given the patients a better chance, but on the whole there was a great improvement in notification, and doctors took much trouble to promptly report cases by telephone.

The only explanation that is forthcoming is that the infecting agent of the disease, the diphtheria bacillus, has for some reason or other become more infective and virulent, whilst owing to the low prevalence of the disease for many years, the population has become more susceptible to it.

Wakefield is not alone in its experience of the severe type of the disease. Several towns in the County have also suffered severely, and reports from certain districts on the Continent of Europe show that the disease there has shewn increased virulence.

An investigation which has been carried out at the Leeds Medical School has demonstrated two types of the bacillus, a mild form and a virulent form, and during the past year the virulent form has tended to predominate. This virulence is displayed not only in the severity of the symptoms, but often in a lack of response to antitoxin treatment, even when the serum is administered fairly early in the illness and in large doses. It was soon obvious that the antitoxin dosage which it had been our practice to administer was of little avail, and though the dosage was greatly increased, up to 48,000 units in many cases, and sometimes given intravenously, it appeared to be of little use in many of the severer cases, although it may have saved the lives of others. It is to be hoped that further research may give us an antitoxin specifically produced to counteract the toxin of the more virulent strain of the diphtheria bacillus. Prevention, however, is the main thing, and in Immunisation we appear to have a means of greatly reducing the incidence of the disease, and of practically abolishing the mortality. With this end in view, the Corporation has now (February, 1932) opened an Immunisation Clinic at the Principal Child Welfare Centre, and full facilities for immunisation are now offered to the public. The response has been very gratifying, and I hope all the parents in Wakefield will see to it and get their children immunised against this deadly disease. Vaccination against Smallpox is important, but, as things are at present, it is far more important to get the children immunised against Diphtheria.

The epidemic of Scarlet Fever was nearly of the same dimensions to the one we had two years ago, and was mainly concentrated in the last quarter of the year, during which period more than half the cases occurred. The majority of the cases were comparatively mild, and out of the 263 cases there were only 2 deaths.

The epidemic of Measles was our usual biennial visitation, and it prevailed chiefly during the second and third quarters of the year. Fortunately it occurred at a favourable period of the year and the mortality was not above the average.

Only 3 sporadic cases of Enteric Fever occurred and there was no mortality.



There was a considerable increase in the number of cases of Pneumonia notified, but even so, notification was far from complete. Of the 134 cases notified, 21 died, but in addition, there were 41 deaths certified as due to Pneumonia, where no notification had been made. As I have suggested before, there would appear to be a great need for hospital provision for cases of Pneumonia, who are unable to get proper nursing at their own homes, and I can see the new Hospital at Snapethorpe doing good work in this connection.

After an absence of two years, Cerebrospinal Fever re-appeared in July. There were only four cases altogether, all boys, occurring one in each week of July, but apparently not associated in any way, except that they all went to the Public Baths. There was no proof that the infection was acquired at the baths, and investigations made elsewhere by the Ministry of Health did not lend any support to the theory of public bath infection. At the same time, it is desirable that the water used in public baths should be maintained as pure as possible, and a large measure of protection against this and other infections could be secured through the institution of the Chlorination Process, which is now becoming increasingly used for public baths throughout the country.

Happily, we missed a visit from one troublesome infectious disease, namely, Smallpox, and not one case was reported during the year.

### Disinfection.

During 1931, the Hospital Porter carried out the following disinfecting work :—

No. of Houses disinfected	438	No. of Pillows disinfected	974
„ Rooms „	746	„ Bolsters „	601
„ Schools „	8	„ Curtains „	612
„ Classrooms „	37	„ Carpets „	392
„ Times Steam Disin-		„ Rugs „	310
„ fector used ..	749	„ Pairs Boots „	434
„ Beds „	718	„ Men's	
„ Mattresses „	405	„ Clothing „	734
„ Blankets „	1241	„ Women's „ „	1439
„ Sheets „	1231	„ Children's	
„ Counterpanes „	774	„ Clothing „	2112
		Miscellaneous ..	733

### Pathological and Bacteriological Examinations.

During the year, 1,608 specimens from the City were examined at the County Bacteriological Laboratory :—



Hair (for Ringworm) ..	101	Urine	95
Throat Swabs (Diphtheria)	594	Sputum	4
Sputum	245	Pus	5
Pus	4	Cerebrospinal	
Urine	4	Fever	29
Faeces	5	Milk (Dairy Cows) ..	23
		Miscellaneous ..	83
Urine	14	Blood (for Wassermann	
Faeces	18	re-action) ..	322
Blood	42	For detection of Spiro-	
Faeces for Dysentery ..	1	chaetes ..	2
		Do. Gonococci ..	15
Total			1608

### VACCINATION.

The administration of the Vaccination Acts was taken over by the Corporation (under the Local Government Act, 1929), from 1st April, 1930. Mr. W. V. Morris (Chief Clerk in the Public Health Department) is Vaccination Officer for the City.

The following Statistics relate to the years 1930 and 1931 :—

Year 1930.						Year 1931.	
Number of Births.	Successfully Vaccinated.	Vaccination postponed, or certified as insusceptible of Vaccination.	Died Unvaccinated.	Removed to other districts or places unknown, &c.	Number of declarations of "conscientious objection."	Certificates of successful primary Vaccination of Children under 14 received during the year.	Declarations of "conscientious objection" received during the year.
1059	416	19	55	67	502	415	512

Excluding deaths and removals, 44 per cent. of the children were vaccinated.

The Public Vaccinators for the City are as under :—

No. 1 District (the whole of Wakefield, except the Municipal Wards of Belle Vue, Portobello and Sandal).	Dr. J. B. Lyle, Grove House, Kirkgate, and " Broxbourne," Barnsley Road.
No. 2 District (the Municipal Wards of Belle Vue, Portobello and Sandal).	Dr. D. Downie, " Maybush," Agbrigg Road, Belle Vue.

County Poor Law Institution. Park  
Lodge Lane.

Dr. J. W. Thomson,  
"The Grove,"  
College Grove  
Road.

## THE QUESTION OF COMPULSORY VACCINATION.

During the year, the Health Committee had under consideration a circular letter from another Authority asking for support to a request made to the Minister of Health for the introduction of legislation for the repeal of the Vaccination Acts and the substitution of a voluntary system of vaccination. I recommended that the views of this Authority be supported, and the Corporation acted accordingly. In giving this advice, I am not to be supposed to have lost faith in the efficacy of vaccination as a preventive of Smallpox. I still hold that vaccination is the only scientific method of preventing Smallpox, and I would still advise that every infant should be vaccinated, and that everybody should be re-vaccinated. But what is the position to-day? Vaccination is only compulsory in name. At one time, Wakefield was a well-vaccinated town. To-day, less than half the children are vaccinated, and the percentage of vaccinations is going down steadily year by year. In my judgment, vaccination should either be compulsory in fact, or it should be made completely voluntary. Public opinion is probably opposed to a really compulsory system, and therefore, I argue, it should be made voluntary. I really believe that under a voluntary system as many children, possibly more, would be vaccinated as under the present so-called compulsory system, and without the cumbrous and expensive machinery of the present system. It is also, I think, questionable whether vaccination, as carried out to-day, under the new Regulations of the Ministry of Health, is so efficient, as in the old days when four marks, and a certain total area of scarification was insisted on. Again, the Smallpox of to-day, in this country, is not the terrible disease it was at the time when vaccination was introduced. At present, it is a mild and non-fatal disease, and hardly calls for more serious attention than that paid to Chicken-pox. Of course, no one can tell how long this mild variety will persist, and no one can say that the old serious type of the disease will not re-appear. If it does re-appear, then, I would say, vaccination should be made compulsory, and compulsory in the true sense of the word. In the meantime, I think that the objects of public health would be achieved by the introduction of a system of free public vaccination, which could be combined with other kinds of preventive inoculation, such as immunisation against Diphtheria, and all placed on a purely voluntary basis.

## TUBERCULOSIS.

## Notification.

During 1931, 56 cases of Pulmonary Tuberculosis (33 males and 23 females), and 21 cases of Non-pulmonary Tuberculosis (14 males and 7 females) were notified. In 1930, the corresponding numbers were 54 and 29. Of the 56 Pulmonary cases, 21 died before the end of the year. Of the 21 Non-pulmonary cases, 4 died before the end of the year. The 21 Non-pulmonary cases comprised :—5 of Bones and Joints, 5 Abdominal, 4 Glands, 3 Skin, 3 Cerebral Meninges, and 1 Other Organs.

## New Cases and Mortality, 1931.

Age Periods.				New Cases.				Deaths.			
				Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
				M.	F.	M.	F.	M.	F.	M.	F.
0—1	..	..	..	—	—	—	—	—	—	—	—
1—5	..	..	..	—	—	4	2	1	—	3	—
5—10	..	..	..	1	1	4	1	—	—	—	—
10—15	..	..	..	3	1	3	2	—	1	3	—
15—20	..	..	..	2	3	2	—	1	2	—	—
20—25	..	..	..	2	5	—	—	1	3	1	1
25—35	..	..	..	6	4	—	1	3	3	—	1
35—45	..	..	..	10	2	—	1	9	1	—	1
45—55	..	..	..	5	5	1	—	7	6	—	—
55—65	..	..	..	3	2	—	—	5	3	—	1
65 and upwards	..	..	..	1	—	—	—	—	—	—	—
Totals				33	23	14	7	27	19	7	4

Of the 46 persons who died from Pulmonary Tuberculosis, 9 (19·5 per cent.) had previously received sanatorium treatment, and the condition of these on admission to the Sanatorium was as follows :—

Stadium I. and Minus T.B.	1	Stadium II. and Plus T.B.	4
Stadium I. and Plus T.B.	4	Stadium III. and Minus T.B.—	
Stadium II. and Minus T.B.	—	Stadium III. and Plus T.B.—	

Of the above, only one might be regarded as a genuinely early case, and this man lived over 12 years after receiving sanatorium treatment.



The following periods intervened between the date of notification and the date of death in the Pulmonary cases :—

Under 1 month ..	..	6	12—18 months ..	..	3
1—3 months ..	..	10	18—24 months ..	..	—
3—6 months ..	..	3	Over 24 months..	..	7
6—12 months ..	..	11	Not notified ..	..	6

The above Table shews that 75 per cent. of the notified cases died within a year of notification, whilst 13 per cent. had not been notified at all.

### Pulmonary Tuberculosis.

Cases left on the Register on the 31st December, 1931 :—

Year Notified.	Total.	Males.	Females	0-15 years.	15-25 years.	25-45 years.	Over 45 years.
1916 ..	1	—	1	—	—	—	1
1917 ..	2	1	1	—	—	1	1
1918 ..	—	—	—	—	—	—	—
1919 ..	2	1	1	—	—	1	1
1920 ..	1	—	1	—	—	—	1
1921 ..	2	1	1	—	1	1	—
1922 ..	1	1	—	—	—	1	—
1923 ..	—	—	—	—	—	—	—
1924 ..	3	2	1	—	2	1	—
1925 ..	3	2	1	—	1	2	—
1926 ..	5	4	1	2	1	1	1
1927 ..	11	6	5	2	5	2	2
1928 ..	21	10	11	3	10	7	1
1929 ..	13	10	3	2	5	5	1
1930 ..	11	8	3	—	2	5	4
1931 ..	24	15	9	2	5	13	4
Totals ..	100	61	39	11	32	40	17

### Condition of Cases on 31st December, 1931.

Well and Working ..	45	Very Ill, confined to house	1
Well, not Working ..	16	In Sanatorium ..	10
Not Well, but Working	2	In County Hospital ..	1
Not Well, not Working	24	In West Riding Mental Hospital ..	1
Total ..			100

**Non-Pulmonary Tuberculosis.**

Cases left on the Register on the 31st December, 1931 :—

Year Notified.	Total.	Males.	Females	0-15 years.	15-25 years.	25-45 years.	Over 45 years.
1913 ..	1	—	1	—	—	—	1
1914 ..	—	—	—	—	—	—	—
1915 ..	—	—	—	—	—	—	—
1916 ..	—	—	—	—	—	—	—
1917 ..	—	—	—	—	—	—	—
1918 ..	—	—	—	—	—	—	—
1919 ..	—	—	—	—	—	—	—
1920 ..	1	—	1	—	1	—	—
1921 ..	—	—	—	—	—	—	—
1922 ..	1	1	—	1	—	—	—
1923 ..	—	—	—	—	—	—	—
1924 ..	—	—	—	—	—	—	—
1925 ..	4	1	3	3	—	—	1
1926 ..	5	3	2	3	—	1	1
1927 ..	2	1	1	1	1	—	—
1928 ..	2	—	2	2	—	—	—
1929 ..	11	8	3	7	2	2	—
1930 ..	19	8	11	14	1	3	1
1931 ..	13	7	6	10	2	1	—
Totals ..	59	29	30	41	7	7	4

**Condition of Cases on 31st December, 1931.**

Well and Working ..	35	In Kirbymoorside Ortho-	
Well, not Working ..	7	paedic Hospital ..	5
Not Well, but Working	1	In Heatherwood Hospital	3
Not Well, not Working	5	In St. Gerard's Hospital,	
Very Ill, confined to house	1	Coleshill .. ..	1
		In County Hospital ..	1
			Total .. 59

**TUBERCULOSIS DISPENSARY.**

During 1931, 186 persons were referred to the Dispensary for examination, and of these, 54 (29 per cent.) were found to be tuberculous. 38 affected with Pulmonary and 16 with Non-pulmonary disease.

In addition, 51 contacts were examined, all of whom were found to be non-tuberculous.

The following Table shows that, of the 38 Pulmonary cases, 13 (34 per cent.) were in the early stage (Stadium I.), 11 (29 per cent.) were in the moderately advanced stage (Stadium II.), and 14 (37 per cent.) were in the more advanced stage (Stadium III.) :—

			Stadium I.		Stadium II.		Stadium III.	
			T.B. Minus.	T.B. Plus.	T.B. Minus.	T.B. Plus.	T.B. Minus.	T.B. Plus.
Males	..	..	4	4	1	4	1	6
Females	..	..	1	4	1	5	2	5
Total	..		5	8	2	9	3	11

The 16 Non-pulmonary cases comprised disease of :—  
Bones and Joints 4; Abdominal 2; Peripheral Glands 5;  
Other Organs 5.

Most of the 186 cases were sent by general medical practitioners, 35 were referred by school medical officers, 4 by maternity and child welfare medical officers, 6 by health visitors, 8 attended voluntarily, and 11 were transfers from other dispensaries.

#### Cases of Tuberculosis on the Dispensary Register at the end of 1931.

<i>Pulmonary Cases.</i>				<i>Non-Pulmonary Cases.</i>			
Adults	{	Males	.. 47	Adults	{	Males	.. 5
		Females	.. 34			Females	.. 8
Children	{	Males	.. 13	Children	{	Males	.. 16
		Females	.. 1			Females	.. 14
		Total	.. 95			Total	.. 43

20 patients were X-Rayed at the Clayton Hospital, and 125 specimens of Sputum were sent to the Laboratory. Dental Treatment was provided for one person in addition to the Dental



Treatment provided at the Sanatorium. The total attendances at the Dispensary were 1,748. The Tuberculosis Officer had 44 consultations with medical practitioners, either at home or at the Hospitals. In addition, the Tuberculosis Officer made 84 home visits, and the Tuberculosis Nurses made 1,041 home visits in connection with the investigation and supervision of tuberculous patients. With regard to insured persons, 16 Forms (G.P. 36) were received, out of 45 Forms sent to Panel practitioners.

The number of attendances of Non-pulmonary cases at the Orthopaedic Clinic during the year was 65, and the number of attendances for Ultra-Violet Ray treatment was 407.

## PULMONARY TUBERCULOSIS.—SANATORIUM TREATMENT.

### Meathop Sanatorium, Grange-over-Sands.

PATIENTS.	Total.			INSURED.			NON-INSURED.		
	Total	M.	F.	Total	M.	F.	Total	M.	F.
Remaining end of 1930 ..	14	12	2	12	12	—	2	—	2
Admitted 1931 ..	20	10	10	16	8	8	4	2	2
Total treated 1931 ..	34	22	12	28	20	8	6	2	4
Discharged during 1931 ..	24	17	7	20	16	4	4	1	3
Died in Sanatorium ..	—	—	—	—	—	—	—	—	—
Remaining end of 1931 ..	10	5	5	8	4	4	2	1	1

During 1931, 34 persons received sanatorium treatment, as compared with 36 in the previous year. Of these, 28 (82 per cent.) were insured persons.

#### Condition on Discharge.

During the year 24 patients were discharged from the sanatorium, and of these 3 (two women and one man) were sent in as observation cases and discharged as non-tuberculous. The condition of the remaining 21 was as follows :—

Condition on Admission.		Condition on Discharge.		
		Quiescent.	Improved.	Not Improved.
Stadium I.	T.B. —	3	1	—
	T.B. +	4	1	3
Stadium II.	T.B. —	1	—	—
	T.B. +	—	2	6
Stadium III.	T.B. —	—	—	—
	T.B. +	—	—	—
Totals ..		8	4	9

Taking all classes, the immediate result of treatment in the Sanatorium was that 38 per cent. were improved to the extent of apparent quiescence of the disease, 19 per cent. were definitely improved, but not to the same extent, and 43 per cent. were not improved.

Taking the early cases by themselves, 58 per cent. were improved to the extent of apparent quiescence of the disease, 17 per cent. were improved, but not to the same extent, and 25 per cent. were not improved.

The periods of stay in the Sanatorium were as follows :—

Up to 3 months	..	1	9—12 months	..	..	1	
3—6 months	..	..	10	12—15 months	..	..	—
6—9 months	..	..	8	15—18 months	..	..	1

### Sanatorium Arrangements.

The Wakefield Corporation continued to use accommodation at the Westmorland Sanatorium, Meathop, near Grange-over-Sands, on the basis of 10 rented beds, with an option on more beds if required. We have every reason to be satisfied with the arrangements, which have proved both economical and efficient.

## NON-PULMONARY TUBERCULOSIS.

## Institutional Treatment.

Number of Children :—	Total	Heatherwood Hospital. Ascot.			Kirbymoorside Hospital.			St. Gerard's Hospital, Coleshill.		
		T.	M.	F.	T.	M.	F.	T.	M.	F.
Remaining, end of 1930	4	—	—	—	4	1	3	—	—	—
Admitted during 1931 ..	9	3	3	—	5	3	2	1	1	—
Discharged during 1931	4	—	—	—	4	3	1	—	—	—
Died during 1931 ..	—	—	—	—	—	—	—	—	—	—
Remaining, end of 1931	9	3	3	—	5	1	4	1	1	—

The 4 children discharged were as follows :—

- (1) Male, aged 4 years, Tuberculosis of Spine. In Institution 16 weeks. He was transferred to the Fever Hospital because he was found to be a Diphtheria Carrier, and was re-admitted later in the year.
- (2) Female, aged 5 years, Tuberculosis of Spine. In Institution 6 months. Disease quiescent.
- (3) Male, aged 9 years, Tuberculosis of Hip. In Institution 17 weeks. Disease quiescent.
- (4) Male, aged 7 years, Tuberculosis of Spine. Re-admitted for Scoliosis of Spine, and discharged, after 10 weeks, much improved.

## Care Work for the Tuberculous.

Extra nourishment was granted by the Corporation to five patients during the year. The Social Service Council has continued its useful care work, which has included the provision of clothing to needy persons going to the Sanatorium.

## REMARKS ON TUBERCULOSIS.

The administrative work connected with Tuberculosis was carried out on the usual lines. The circumstances of all cases notified are investigated and continuous supervision is maintained by the Health Visitors so long as the cases remain on the Register. This Register is revised annually, and the names of all cases who have recovered according to the rules laid down by the Ministry of Health, who have died, or who have left



the City, are removed. Printed and verbal instructions as to precautions against the spread of infection are given, and every effort is made to secure compliance with these instructions. Sputum flasks and disinfectant fluid are supplied free, and disinfection of bedding, etc., is carried out as required. The services of the Tuberculosis Officer are available for purposes of diagnosis and advice regarding suitable lines of treatment, either at the Tuberculosis Dispensary or for consultation in the home. Radiological examinations are made at the Clayton Hospital. Contacts are encouraged to attend at the Dispensary for examination. Sanatorium Treatment at the Westmorland Sanatorium is available for suitable pulmonary cases, and hospital treatment is likewise available for children suffering from non-pulmonary disease at the Yorkshire Children's Orthopaedic Hospital at Kirbymoorside and elsewhere, as well as locally at the Clayton and County Hospital. The 26 Special Houses provided for the families of ex-sanatorium patients have all been occupied during the year, and the results continue satisfactory. The non-pulmonary group of cases can also have advice and treatment at the Orthopaedic and Ultra-Violet Ray Clinics of the Corporation. The only hospital facilities available for advanced cases are at the County Hospital (Poor Law), but provision will be made for these cases at the new Snapethorpe Hospital. Generally speaking, the arrangements may be regarded as satisfactory. The notification of so many cases, particularly of the pulmonary variety, at a late stage, continues to be a great drawback to the effective functioning of administrative measures. It will have been noted that three quarters of the pulmonary cases who died in 1931 died within twelve months of notification, and one-third within six months, whilst 13 per cent. had not been notified at all. It is clear that a considerable proportion of these cases must have been notified at a comparatively late stage of the malady. The result of this is two-fold. Firstly, the patients themselves are not likely to derive benefit from the special facilities for treatment available. Secondly, patients who have been allowed to become advanced cases are a source of danger to others, and during a longer or shorter period of their illness, sometimes a very long period, no steps have been taken to minimise that risk. This aspect of the Tuberculosis problem was fully discussed in my last Report, but I would again urge on the medical practitioners of the City the importance of taking full advantage of the facilities of the Dispensary for purposes of early diagnosis. Of course, not a few of the cases are more or less advanced before they consult a doctor at all, but there are also cases where earlier diagnosis might have been secured through earlier

reference to the Dispensary. The practice of some doctors, who promptly send every case to the Dispensary where there is the slightest suspicion or doubt, is to be commended. It is only in this way that the Dispensary can be of the service to the community that it ought to be. One great advantage of this practice is that the patient is kept under observation until a definite conclusion is come to. The diagnosis of the early case is not always easy. It often requires repeated examinations, and the application of various tests, and sometimes a fairly prolonged period of observation is necessary, before the doctor can fairly make up his mind one way or the other. It is not always easy to do all this in the rush of general practice, and there is often the added drawback that the patient ceases to attend before a diagnosis is made. He feels better for the time being, and thinks it unnecessary to visit the doctor, until perhaps at a later date, when he may be much worse. The doctor has no means of following him up, but at the Dispensary, no patient is lost sight of until a definite diagnosis has been made.

The problem of preventing non-pulmonary Tuberculosis largely resolves itself into the problem of preventing the consumption of tuberculous milk. There is now an increasing tendency to regard the compulsory pasteurisation of all milk, other than Certified and Grade "A" Tuberculin-tested Milk, as the only effective means of securing milk free from the danger of Tuberculosis. It is urged that the steps already being taken to reduce Tuberculosis amongst cattle, *e.g.*, by the Tuberculosis Order, and by improved cowshed sanitation are only touching the fringe of the subject, and that still something like 7 per cent. of the raw market milk is infected with Tuberculosis. On the other hand, there are those who would concentrate on eradicating Tuberculosis from dairy cattle, admittedly a difficult and expensive problem, and one that would not be solved for many years to come. The question is a controversial one, and we are likely to hear a good deal more about it in the near future. Although the results of our bacteriological tests do not suggest a high proportion of infected milk in Wakefield, in fact all the samples tested in 1931 were free from tubercle bacilli, yet the danger exists here as elsewhere.



### VENEREAL DISEASES.

#### TREATMENT OF VENEREAL DISEASES AT THE VENEREAL DISEASES CLINIC, CLAYTON HOSPITAL, WAKEFIELD, 1931.

(a) Number of Wakefield Persons dealt with for the first time  
and found to be suffering from :—

	Total.	Males.	Females.
Syphilis .. ..	27	19	8
Soft Chancre .. ..	—	—	—
Gonorrhoea .. ..	43	30	13
Not suffering from Venereal Disease ..	39	30	9
Total ..	109	79	30

(b) Total number of attendances at the Out-patient Clinic :—

	Total.	Males.	Females.
Syphilis .. ..	800	455	345
Soft Chancre .. ..	7	7	—
Gonorrhoea .. ..	774	397	377
Conditions other than Venereal .. ..	147	109	38
Total ..	1728	968	760

(c) Number of attendances of Wakefield patients for irrigation  
and treatment (not including attendances at Clinic) :—

	Total.	Males.	Females.
	3438	1960	1478

(d) Aggregate number of In-patient days of Wakefield  
patients :—

	Total.	Males.	Females.
Syphilis .. ..	—	—	—
Gonorrhoea .. ..	193	3	190
Total ..	193	3	190

(e) Number of Doses of Arsenobenzol Compounds (N.A.B. and  
Sulpharsenol) given to Wakefield patients :—504.



## LEEDS GENERAL INFIRMARY.—VENEREAL DISEASES CLINIC.

During 1931, 5 patients from Wakefield applied for examination, and 3 were found to be suffering from Venereal Disease (Syphilis 2, and Gonorrhoea 1). The total attendances were 55, as compared with 96 in 1930. The aggregate of in-patient days was nil, and the number of doses of Arsenobenzol Compounds given to Wakefield patients was 23.

### Pathological Examinations in connection with Venereal Diseases, 1931.

	Total.	For Detec- tion of Spiro- chætes.	For Detec- tion of Gonococci.	Wasserman Re-action.	Other exam- inations.
County Hall Laboratory ..	339	2	15	322	—
Clayton Hospital Clinic .. ..	448	1	447	—	—
Leeds Infirmary Clinic .. ..	12	1	—	11	—
Totals ..	799	4	462	333	—

## MATERNITY AND CHILD WELFARE.

*By Dr. Jessie Eeles, Medical Officer for Maternity and Child Welfare.*

### Supervision of Midwives.

The district midwives were regularly inspected during the year and the Rules of the Central Midwives Board were found to be generally complied with.

18 Midwives gave notice of intention to practice. Of these, 5 were on the Staff of the County Hospital, 3 of the Maternity Hospital, 2 of a private Maternity Home, and 8 including 2 municipal midwives were engaged in district work. Each of these midwives held the certificate of the Central Midwives Board. Three of the district midwives, who gave notice, did not in fact practice during the year.

## Medical Help.

71 notifications of sending for Medical Aid were received from Midwives in respect of home confinements; 53 related to the mother and 18 to the infant.

### *For Mother.*

Torn Perineum .. ..	26	Constant false labour pains	1
Long Second Stage (including 1 difficult labour) ..	8	Albuminuria .. ..	1
Antepartum Haemorrhage	3	Vulva swollen and bleeding	1
Postpartum Haemorrhage	5	Complete abortion ..	1
Adherent Placenta ..	1	White Leg .. ..	1
Extended Breech ..	2	Cracked Nipples ..	1
Cough, abdominal tender- ness and slight pains..	1	Rise of Temperature for over 24 hours ..	1

### *For Infant.*

Discharging Eyes ..	6	Still-born (before arrival)	1
Prematurity .. ..	3	Patches of discolouration on body .. ..	1
Dangerous Feebleness ..	3	Swollen hand, watery eye	1
Cyanosis and Feebleness	1	Cough .. ..	1
Spina Bifida .. ..	1		

## Maternity Homes.

The one Private Maternity Home on the Register was visited during the year, and everything was found to be satisfactory.

## Ante-Natal Clinic.

During 1931 the Ante-Natal Clinic continued to be held twice weekly. New patients attended on Wednesdays between 10 a.m. and 12 noon, and subsequent visits were paid on Fridays between 2 and 5 p.m.

During the year 601 expectant mothers attended—523 new cases and 78 patients who had begun to attend in 1930. Of the new cases 235 were primiparae and 288 were multiparae. The total attendances were 2,880. 101 cases were referred to the Clinic by midwives and 15 by doctors. The same routine was carried out as in 1930 and patients who failed to keep their appointments were followed up by letter or by a Health Visitor or a District Midwife. Practically no patients were lost sight of antenatally in this way.

The age groups of new cases attending the Clinic in 1931 were as follows :—

Age.	Primiparae.	Multiparae.
Under 20 years ..	27	3
20 to 25 years ..	81	53
25 to 30 years ..	88	108
30 to 35 years ..	28	72
35 to 40 years ..	10	38
Over 40 years ..	1	14
Total ..	235	288

7.2 per cent. of the patients attended for the first time before the 4th month of pregnancy.

53.3 per cent. attended for the first time between the beginning of the 4th and the end of the 6th month.

18.8 per cent. attended for the first time during the 7th month.

16.0 per cent. attended for the first time during the 8th month.

4.7 per cent. attended for the first time during the last month.

Thus 60.5 per cent. of the patients attended for the first time before the end of the 6th month of pregnancy. The corresponding percentage for 1930 was 58.9 and for 1929 it was 45.

The following conditions were found and treated :—

Constipation .. ..	132	Deaf Mutes .. ..	2
Indigestion, Vomiting &c.	117	Hysteria .. ..	1
Diarrhoea .. ..	4	Chorea .. ..	1
Dental Caries .. ..	96	Skin Diseases .. ..	16
Haemorrhoids .. ..	11	Pruritus .. ..	10
Fistula in Ano .. ..	1	Boils .. ..	4
Threadworms .. ..	1	Congenital Syphilis .. ..	2
Inguinal Hernia .. ..	1	Septic Leg .. ..	1
Umbilical Hernia .. ..	1	Backache, Cramp, &c.	64
Laryngitis, Bronchitis, &c.	31	Inverted Nipples .. ..	1
Pleurisy .. ..	2	Chronic Cystic Mastitis .. ..	1
Frontal Sinus Catarrh .. ..	1	Prepatella Bursitis .. ..	2
Albuminuria		Old Potts' Disease .. ..	1
(Symptomless) .. ..	102	Old Tubercular Hip .. ..	1
Albuminuria (Toxic) .. ..	15	Scoliosis .. ..	1
Chronic Nephritis .. ..	10	Vaginal Discharge .. ..	13
Toxic Symptoms without		Contracted Pelvis .. ..	13
Albuminuria .. ..	6		
Urinary infections .. ..	5		



Dysuria .. .. .	21	Malpresentations	
Oedema without		corrected .. .. .	21
Albuminuria .. .. .	7	Antepartum Haemorrhage	19
Heart Disease (Organic)	4	Complete Miscarriage ..	2
Heart Disease (Functional)	5	Incomplete Miscarriage	1
Varicose Veins .. .. .	53	Placenta Praevia .. .. .	2
Phlebitis .. .. .	2	Fibroids .. .. .	2
Anaemia .. .. .	6	Retroflexed Gravid Uterus	2
Epistaxis .. .. .	5	Ovarian Tumour and	
Dizziness and Fainting	21	Pyosalpinx .. .. .	1
Debility and Nervousness	19	Not pregnant .. .. .	10
Sleeplessness .. .. .	39	Wassermann Re-actions	
		taken .. .. .	3

84.5 per cent. of the patients attending the Clinic had some abnormality or discomfort requiring attention. Only 94 patients felt, and were, perfectly well throughout.

The following cases were admitted to the hospital from the Clinic for ante-natal treatment :—

Albuminuria .. .. .	22	Abscess (Buttock) .. .. .	1
Pyelitis .. .. .	2	Heart Disease .. .. .	2
Cystitis .. .. .	1	Retroflexed Gravid Uterus	
Toxic Symptoms without		for replacement under	
Albuminuria .. .. .	3	Anaesthesia .. .. .	2
Fainting Attacks .. .. .	1	Placenta Praevia .. .. .	2
Debility (Old Tubercular		Small Pelvis (induction)	4
Hip) .. .. .	1	Primiparous Breech cases	
Phlebitis .. .. .	1	for attempted version	
Bronchitis .. .. .	1	under Anaesthesia .. .. .	5
		Chloroform Examination	
		re Pregnancy .. .. .	2

### Dental Treatment.

Expectant Mothers in need of dental treatment can have the treatment carried out at the Dental Clinic in King Street. During 1931, 25 sessions were held, 49 patients were treated, and the attendances totalled 81. There is still considerable difficulty in persuading the patients who need treatment most, to have it carried out. The prejudice is strongest in the uneducated type of patient.

### THE MATERNITY HOSPITAL.

The number of cases admitted during 1931 was 410, including 69 from outside the City. Out of the total, 23 were emergency cases, 12 from Wakefield and 11 from outlying districts. 382 patients were delivered in hospital, 349 by midwives and 33 by doctors.

In the following cases medical treatment was required for some abnormality :—

**(a) Ante-Natal.—71.**

Antepartum Haemorrhage		Diarrhoea .. ..	1
(4 placenta praevia) ..	10	Changing presentation	1
Albuminuria (3 chronic		Chorea .. ..	1
Nephritis) .. ..	26	Retroflexed Gravid Uterus	2
Pyuria (3 pyelitis, 2 cystitis)	5	Examination <i>re</i> Pregnancy	2
Eclampsia .. ..	3	Varicose Veins .. ..	2
Heart Disease .. ..	3	Abscess (Buttock) ..	1
Excessive Vomiting ..	3	Breech presentations for	
Small Pelvis (4 induction,		Version under	
1 Caesarean Section)	5	Anaesthetic .. ..	5
Bronchitis .. ..	1		

**(b) During Labour.—38.**

Long 1st stage .. ..	6	Primiparous Breech (1	
Long 2nd stage .. ..	5	impacted) .. ..	5
Heart Disease .. ..	1	Antepartum Haemorrhage	
Eclampsia .. ..	1	(3 accidental, 3 placenta	
Failed Forceps .. ..	1	praevia) .. ..	6
Foetal Distress .. ..	6	Albuminuria .. ..	1
Prolapse of Cord .. ..	2	Uterine Fibroids .. ..	1
Face Case .. ..	1	Retained Placenta .. ..	1
		Adherent Placenta .. ..	1

**(c) After Labour.—33.**

Mastitis .. ..	10	Puerperal Fever .. ..	2
White Leg .. ..	4	Albuminuria .. ..	2
Phlebitis .. ..	1	Eclampsia .. ..	1
Cystitis and Pyelitis ..	10	Sepsis in Caesar Scar ..	1
Obstetric Shock .. ..	2		

**(d) For the Infant.—28.**

Asphyxia .. ..	4	Vomiting .. ..	1
Feebleness .. ..	5	Lumbar Kyphosis .. ..	1
Rash .. ..	1	Spina Bifida (operable)	1
Septic Rhinitis .. ..	3	Sticky Eyes .. ..	5
Bronchitis .. ..	4	Abscess (Arm) .. ..	1
Cerebral Haemorrhage	2		

Instrumental delivery was required in 15 cases (*i.e.*, 3.9 per cent. of the total). The reasons for interference was as follows :—

Primary Uterine Inertia with	Heart Disease	..	...	1
maternal and foetal distress,—				
manual dilatation and				
forceps extraction ..	2	Eclampsia	..	1
Long second stage—Failure		Failed Forceps	..	1
to advance ..	5	Foetal Distress	..	5

Caesarean Section was performed four times, for the following reasons :—

Placenta Praevia (one having had previous	
Caesarean) ..	3
Contracted Pelvis, large baby, uterine inertia	1

The following cases required other forms of operative treatment :—

Replacement of Retroflexed Gravid Uterus	..	2
Primiparous Breech Cases—Version under general		
Anaesthetic (3 successful) ..	5	
Induction of premature labour for contracted Pelvis		4
Manual removal of Placenta ..	2	
Suture of complete rectal and perineal tear	..	1
Examinations under Chloroform ..	2	
Bipolar Podalic version for Placenta Praevia	..	2

There were 2 cases notified as Puerperal Fever—one an emergency case admitted with a raised temperature and many lacerations, forceps having been unsuccessfully applied at home; the other being a normal case in labour for a few hours only, never vaginally examined and with no laceration.

The former case was sent to the County Hospital and recovered. The latter was sent to the Clayton Hospital and was recovering at the end of the year.

8 cases of Puerperal Pyrexia were notified. The following were the causes :—

Pyelitis or Cystitis ..	3	White Leg ..	1
Mastitis (1 subsided,		Stitch Abscess in	
2 incised) ..	3	Caesarean operation	
		Scar ..	1

All were treated in the Maternity Hospital. The patient with White Leg died at the end of her 3rd week from pulmonary embolism. The others all recovered.

No cases of Ophthalmia Neonatorum or Pemphigus occurred in the hospital during the year. There were 5 cases of slight inflammation of the eyes. All were clear when discharged.



There were 23 still-births and 11 infant deaths within 10 days of birth. The causes of death were these :—

Prematurity (1 non-viable) .. .. .	4
Asphyxia Neonatorum (1 had prolapsed cord) .. .. .	2
Congenital Debility .. .. .	1
Cerebral Haemorrhage .. .. .	2
Commencing Maceration .. .. .	1
Purulent Rhinitis and Bronchitis .. .. .	1

There were five maternal deaths. Two of these were from Pulmonary Embolism following White Leg. Both were unhealthy patients with albuminuria and anaemia. One was an emergency case and the other a booked case. The confinements were normal, and the patients had not been allowed to get up. The third death was from Eclampsia, an emergency case who had had no ante-natal supervision after the 7th month. The fourth patient died from shock following delivery of large twins, together the babies weighed  $15\frac{1}{2}$  pounds. The patient was admitted in emergency, suffering from severe toxæmia. The fifth case was one of Placenta Praevia—a booked case. She had had a Caesarean Section the previous year for repeated haemorrhage and had not properly regained strength before she became pregnant again. Placenta Praevia was diagnosed before any serious loss occurred and Caesarean Section was decided upon. The patient collapsed from haemorrhage during the operation and died a few hours afterwards.

### Ante-Natal Supervision and Morbidity.

Of the 382 patients delivered in the Maternity Hospital during 1931, 327 had had regular ante-natal supervision (*i.e.*, the patients had attended for the first time not later than the 36th week of pregnancy, and had returned when instructed to do so).

Among the 327 there were 2 deaths (0·6 per cent.)—one a case of chronic nephritis who developed White Leg and died of embolism, the other the case of placenta praevia mentioned above. The following abnormalities in the confinement or puerperium occurred :—

Forceps deliveries (2 following induction) ..	10	Post Partum Eclamptic fit (patient refused to come in for treatment ante-natally) .. ..	1
Inductions followed by normal labour .. ..	2	Mastitis .. .. .	6
Caesarean Sections (1 placenta praevia, 1 small pelvis) (1 died) ..	2	Pyuria .. .. .	4
		White Leg (1 died) ..	2

Prolapsed Cord (Twin)	1	Phlebitis	..	..	1
Accidental Haemorrhage	3	Puerperal Fever	..	..	1
Placenta Praevia (normal labour)	..	Pelvic Cellulitis (mild)	..	..	1
Adherent Placenta	..				1
Torn Perineum	..				64

The actual number of cases with any abnormality however slight was 100 (30·5 per cent.). Excluding perineal laceration and the inductions followed by normal labour the number with abnormalities was 34 (10·4 per cent.).

The average duration of stay of patients in hospital was 15·2 days.

### Training of Pupil Midwives.

The ordinary number of pupils is 8. During 1931, 8 new pupils commenced their training. None of these were trained nurses. 6 pupils passed the examination of the Central Midwives Board during the year. The pupils attend lectures at the Leeds Medical School, and receive tutorial and practical instruction from the Matron and the Sister of the Hospital.

### District Cases.

136 confinements were attended by the two Municipal District Midwives assisted by the pupil midwives. In this way the latter gain experience of home midwifery.

### Post-Natal Clinic.

The Post-Natal Clinic was held weekly throughout the year, the patients being seen on Wednesdays at 10 a.m., along with the new ante-natal cases. The patients attending the Clinic are chiefly those who have been confined in the hospital. They are asked to attend at the end of the sixth week whether the confinement has been normal or not. In addition, patients complaining of any form of gynaecological trouble are sent from Welfare Centres to be examined and referred for suitable treatment.

During 1931 the number of patients examined was 266, and the total number of attendances was 321.

Of the 266 cases, 169 (63 per cent.) had no complaints and no abnormality on examination of the pelvic organs. The abnormal conditions found and treated or referred for treatment were these :—

Constipation .. ..	32	Debility .. ..	3
Backache .. ..	11	Neurosis .. ..	1
Haemorrhoids .. ..	5	Glycosuria .. ..	1
Fissure in Ano .. ..	3	Old White Leg .. ..	1
Appendicular Colic .. ..	1	Lupus .. ..	1
Cystitis .. ..	2	Mastitis .. ..	1
Persistence of Albuminuria		Persistence of Lochia .. ..	8
(chronic nephritis or		Prolapsus Uteri .. ..	5
Post-eclamptic) .. ..	13	Cystocele .. ..	2
Incontinence of Urine		Rectocele .. ..	1
(functional) .. ..	1	Retroflexion .. ..	7
Coccydynia .. ..	1	Retroversion .. ..	11
Right Inguinal Hernia	1	Vaginal Discharge .. ..	7
Boils .. ..	1	Granulations in Perineal	
Congenital Syphilis .. ..	1	Scar .. ..	3
Heart Disease .. ..	1	Vaginitis .. ..	2
Epistaxis .. ..	1	Amenorrhoea .. ..	4
Anaemia .. ..	1	Menorrhagia .. ..	8
Endometriomata in Tubes	1	Prolapsed Ovary .. ..	1
Lipoma Vulvar .. ..	1	Dysmenorrhoea .. ..	1
Split Cervix .. ..	2	Fibroids .. ..	1

### **Puerperal Fever and Puerperal Pyrexia.**

During 1931, 15 cases were notified under the regulations, 12 being cases of Pyrexia and 3 cases of Puerperal Fever. Of the 12 cases of Pyrexia, 2 were attended at the confinement by a doctor called in by a midwife, 5 by doctors, and 5 by midwives. 8 of the cases were notified from the Maternity Hospital, and 4 by private doctors. 8 cases were treated at the Maternity Hospital and one died. The other 4 were treated at home and one died.

Inquiries into the causes of the Pyrexia gave the following results :—

Pyelitis .. ..	4	Pneumonia .. ..	1 (died)
Mastitis (suppurative) .. ..	2	White Leg .. ..	1 (died)
Mastitis (Non-suppurative)	1	Influenza .. ..	1
		Doubtful .. ..	2

Of the 3 cases of Sepsis, 2 were delivered by doctors, and one by a midwife. Two were notified from the Maternity Hospital (one was a failed forceps case, and the other a normal delivery). One case was notified from the Clayton Hospital. This case had a retained placenta and a complete tear into the rectum. All three recovered, though one of the cases, two months after recovery, had an emergency operation for pyosalpinx and died.



### Ophthalmia Neonatorum.

8 cases of Ophthalmia Neonatorum were notified during 1931, *i.e.*, 0·84 per cent. of the notified live births. 6 cases were notified in 1930, 10 in 1929, 16 in 1928, 9 in 1927, 7 in 1926, and 3 in 1925.

CASES.			Vision Un- impaired.	Vision Impaired.	Total Blindness.	Deaths.
Cases Notified.	Treated.					
	At Home.	In Hospital				
8	4	4	8	—	—	—

### HOME VISITING BY HEALTH VISITORS.

The six district Health Visitors, who also act as School and Tuberculosis Nurses carried out the following work during the year :—

Infant Visiting—	Primary Visits	..	..	..	905
	Re-Visits (under 1 year)	..	..	..	9,668
	Re-Visits (1—5 years)	..	..	..	6,323
Total Visits					16,896

Expectant Mothers—	Primary Visits	..	..	..	221
	Re-Visits	..	..	..	361
Total Visits					582

Visits <i>re</i> Still Births	..	..	..	..	45
Visits <i>re</i> Midwives	..	..	..	..	—
Attendances at Child Welfare Centres	..	..	..	..	309
Attendances at Tuberculosis Dispensary	..	..	..	..	145
Visits to Tuberculous Patients	..	..	..	..	1,041
Attendances at Medical Inspection of School Children	..	..	..	..	221
Number of Visits to Schools	..	..	..	..	598
Number of Examinations at Schools <i>re</i> Cleanliness	..	..	..	..	9,379
Number of Examinations at Schools <i>re</i> Treatment	..	..	..	..	2,124
Number of Homes Visited <i>re</i> Contagious Diseases	..	..	..	..	1,246
Number of Homes Visited <i>re</i> Verminous and Neglected Children	..	..	..	..	63
Number of Homes Visited <i>re</i> Treatment	..	..	..	..	1,731
Number of Homes Visited for Other Purposes	..	..	..	..	735

Total number of Homes Visited <i>re</i> School Children ..	3,775
Homes Visited <i>re</i> Mental Defectives .. ..	402
Visits for Purposes of Nursing .. ..	50
Miscellaneous Visits .. ..	375
Total number of Home Visits (all purposes) ..	23,166

### INFANT LIFE PROTECTION.

The Health Visitors act as Visitors under Part I. of the Childrens Act (1908). There were 2 children on the Register at the beginning of the year, 2 new children were added, and one left the City during the year. At the end of the year 3 children remained on the Register. All the children were satisfactorily cared for.

### CHILD WELFARE CENTRES.

#### Numbers on Registers, 1931.

Centre.	Mothers.	Infants.	Children, 1—5.	Expectan Mothers
Principal Child Welfare Centre:—				
Miss Farrar's District .. ..	246	200	109	34
Miss Staniforth's District ..	238	218	116	19
Miss Gardner's District ..	128	117	81	8
Miss Robertshaw's District	264	251	174	24
Belle Vue (Miss Thorp) ..	192	181	117	14
Alverthorpe—Snapethorpe (Miss Dearden) .. ..	307	290	96	32
Totals .. ..	1375	1257	693	131

## Attendances.

Centre.	Mothers.	Infants.	Children 1—5.	Expectant Mothers.
Principal Child Welfare Centre.:—				
Miss Farrar's District ..	2294	1885	1746	80
Miss Staniforth's District ..	2162	1881	1130	78
Miss Gardner's District ..	2097	1705	861	67
Miss Robertshaw's District	2184	1639	994	65
Belle Vue (Miss Thorp) .. ..	2645	1925	1389	93
Alverthorpe—Snapethorpe (Miss Dearden) .. ..	948	851	357	53
Totals .. ..	12330	9886	6477	436

As in 1930, centres were held at the Principal Child Welfare Centre on four afternoons each week—Mondays, Tuesdays, Wednesdays and Thursdays—at Belle Vue once a week on Tuesday Afternoons, and at Alverthorpe on Wednesdays.

The only change which took place during the year was the opening of the new Centre at Snapethorpe Hall in October. This new Centre is ideally situated for the mothers living on the Lupset Housing Estate, and has now replaced the old Alverthorpe one. Most of the mothers on the register of the Alverthorpe Clinic came from Lupset and very little use was made of the Centre by the people living in Alverthorpe itself. It was therefore felt that a more convenient place ought to be chosen for the benefit of the Lupset population. The enormous increase in attendances since October has amply justified the change. The accommodation consists of a large assembly hall, a weighing room, a consulting room, a toddlers' playroom, a room where tea is prepared, and a dispensary. In the latter is kept a stock of everything that is likely to be prescribed including the various dried milks. The centre was formally opened by the Mayoress on October 7th.

During 1931, 1,526 new infants and 332 mothers were examined medically at the Centres. Of the 1,526 infants 885 (*i.e.*, 58 per cent.) were found to be normal and satisfactory



while 641 had some defect or ailment requiring supervision or treatment. The total number of medical examinations made was 10,991 (10,057 of children and 934 of mothers).

All the infants attending the centres are medically examined at least once a month and more often, of course, when necessary.

That the work of the Centres makes for a better physique among the children who survive, is a fairly generally recognised fact. In order to ascertain whether in Wakefield the infant mortality rate was also affected by this work a calculation was made on the following lines. The total number of live births in the City for 1931 was 948. There were 38 neonatal deaths. These were subtracted from the total births, as being neither centre nor non-centre babies, thus leaving 910. There were 42 infant deaths between the ages of 4 weeks and 1 year, and of these 21 were centre babies and 21 non-centre babies. 592 babies born in 1931 attended the centres, leaving 318 babies which were not brought to centres. The death rate among centre babies was therefore 35·5 per 1,000 births, whereas among non-centre babies it was 66 per 1,000 births.

#### INFANT FEEDING.—Infants born in 1930.

	Infants born 1930.	Percentage
Wholly breast fed for six months or longer .. .. .	762	77·7
Wholly breast fed for periods less than six months, but more than one month .. .. .	76	7·7
Combined breast and artificial feeding for periods of six months or longer	84	8·6
Combined breast and artificial feeding for periods of less than six months, but more than one month ..	45	4·5
Artificially fed from 1 month or earlier .. .. .	15	1·5
Total .. .. .	982	100·0

There is a decrease of over 5 per cent. in the number of infants wholly breast fed, but as the percentage of wholly

artificially fed infants remains about the same, this decrease is not as serious as it looks.

#### SUPPLY OF DRIED MILK, 1931.

Sold at Cost Price	..	..	..	5,636 lbs.
Sold at Half Price	..	..	..	906 „
Sold at Quarter Price	..	..	..	1,521 „
Supplied Free..	..	..	..	9,416 „
				<hr/>
				17,479 „
				<hr/>

The amount of Dried Milk supplied in 1931 exceeded that supplied in 1930 by 265 lbs.

The cost to the Corporation for Dried Milk free or sold at less than Cost Price, amounted to £830 5s. 3d.

62 Packets of Lactagol were also given out during the year, 38 being sold at cost price, 10 sold at quarter price and 14 given free.

#### ORTHOPAEDIC AND ULTRA-VIOLET RAY CLINICS.

These Clinics are held at the Principal Child Welfare Centre. The Orthopaedic Clinic is part of the School Medical Service, but it also provides treatment for Child Welfare and Tuberculous cases. The Ultra-Violet Ray Clinic belongs to the Mental and Child Welfare Committee, but it also provides treatment for School Children and Tuberculous cases.

#### ORTHOPAEDIC CLINIC.

During 1931, the work of the Orthopaedic Clinic continued on the same lines as in the previous year. Dr. Crockatt attended once a month to see cases requiring his advice, and the Clinic was open daily for treatment. New cases are dealt with on Saturday mornings at 10 o'clock. Maternity and Child Welfare cases are treated at the same Clinic as the Education cases.

During the year 144 children attended the Clinic. Of these 67 were new cases and 77 were carried over from 1930. Of these 90 remained on the register at the end of 1931; 15 ceased attending; and 39 were discharged. The total attendances numbered 1,211.

The number of orthopaedic cases treated by massage and remedial exercises was 57, by Artificial Sunlight 14. In 3 cases X-Ray examinations were made by arrangement with the Clayton Hospital, in 20 cases surgical appliances were supplied or repaired, and in 2 cases tenotomies were carried out at the Clinic itself.

27 Wakefield children were recommended for hospital treatment and one from Featherstone. Of these 27, 22 were admitted to institutions, 1 had Out-Patient treatment in Leeds General Infirmary, 2 had tenotomy performed at the Orthopaedic Clinic, in 1 case the parents were still considering treatment, and 1 case was on the Waiting List for Kirbymoorside Orthopaedic Hospital at the end of the year.

### **Education Hospital Cases.**

At the end of 1930, 2 educational cases were in institutions, and 5 on the waiting list for treatment. During 1931, 9 new cases and one old one were admitted to hospital for treatment, 9 cases were discharged, and 3 remained in institutions at the end of the year. There was no waiting list of education cases at the end of 1931.

The following Table is a summary of the year's work of the Orthopaedic Clinic :—



DEFECT.	New Cases.				Old Cases.				Seen by Orthopaedic Officer.	Total Attendances.	Treatment Recommended.								Discharged.			Ceased attending.	Remaining on Register.
	Total.	Education.	Health.	Maternity and Child Welfare.	Total.	Education.	Health.	Maternity and Child Welfare.			Observation.	Orthopaedic Clinic.	Ultra Violet Ray Clinic.	No Treatment.	Hospital.	Surgical Appliances.	X-Ray.	Plaster.	Cured.	Improved.	No Change.		
Rickets ..	8	1	—	7 (1 Feather-stone)	15	7	—	8 (1 Feather-stone)	23	44	3	—	8	6	5	5	—	—	6	1	—	16	
Bone and Joint Tubercle ..	3	—	3	—	17	—	17	—	20	35	7	1	2	1	7	4	—	1	1	1 (left City)	—	17	
Clubfoot ..	6	3	—	3 (1 Feather-stone)	7	6	—	1	13	207	1	3	—	—	8	2	1	—	—	1	—	12	
Other Congenital Deformities ..	4	2	—	2	1	1	—	—	4	8	2	—	—	1	1	—	—	—	—	2	—	3	
Structural Scoliosis ..	1	1	—	—	1	1	—	—	2	82	—	2	—	—	—	—	—	—	—	—	—	3	
Flatfoot ..	1	—	—	1	4	4	—	—	4	69	—	4	—	—	1	—	—	—	—	—	—	3	
Infantile Hemiplegia ..	3	2	—	1	4	2	—	2	7	14	4	1 (Tenot-omy)	—	1	1	1	—	1	—	1	1	5	
Anterior Poliomyelitis ..	3	—	—	3	6	6	—	—	9	24	2	2 (1 Tenot-omy).	—	—	2	4	1	—	—	—	—	9	
Erb's Paralysis ..	—	—	—	—	3	2	—	1	3	117	—	3	—	—	—	1	—	—	7	—	1	2	
Postural Defects ..	14	14	—	—	5	5	—	—	2	321	—	19	—	—	—	—	—	—	4	—	5	5	
Mouth Breathing ..	14	14	—	—	5	5	—	—	—	186	—	19	—	—	—	—	—	—	4	—	4	6	
Various ..	10	8	—	2	9	7	—	2	18	104	5	3	4	2	2	3	1	3	2	2	2	10	
Total ..	67	45	3	19	77	46	17	14	105	1211	24	57	14	11	27	20	3	3	11	20	8	15	90

## ARTIFICIAL SUNLIGHT CLINIC.

The treatment of selected cases by Artificial Sunlight at the Clinic which was opened for this purpose in 1930 was continued in 1931. The equipment consisted, as before, of a double suspended Jesioneck Mercury Vapour Lamp and a 1,000 Watt Radiant Heat Lamp. The former is suspended over a couch on which the children lie during treatment. Ordinarily there are 4 sessions weekly (2 for boys and 2 for girls), but during part of the year other two had to be added because of the large number of cases presented for treatment. It is noteworthy that the extra sessions were always boys' sessions. As before, the cases were selected from Schools and from the School Clinic, from the Orthopaedic Clinic, from Child Welfare Centres, from the Tuberculosis Dispensary, and some were sent by their private doctors. New cases recommended for this form of treatment were seen on Saturdays at 10 a.m. The total number of attendances in 1931 was 5·182 and the following Table gives a resume of the cases treated :—

Defects.	Total Attendances.	Number of Cases.							Ceased to attend.		Discharged.	Remaining on Register
		Total.	New.			Old.			After more than 10 Exposures.	After less than 10 Exposures.		
			Education.	Health.	Maternity and Child Welfare.	Education.	Health.	Maternity and Child Welfare.				
Rickets .. ..	1069	40	6	—	16	5	—	13	14	7	9	10
Debility, with various Symptoms (Nervousness, Malnutrition, Cervical Glands, Bronchitis).	1722	57	16	—	16	17	—	8	11	4 (1 left district).	16	26
Para Tuberculosis	273	11	7	—	2	—	2	—	1	1	3	6
Non-Pulmonary Tuberculosis ..	407	12	—	9	—	—	3	—	1	1	3	7
Cervical Adenitis (Non- Tubercular).	136	6	1	—	4	1	—	—	—	2 (1 wanted Private Treat- ment).	1	3

Defects.	Total Attendances.	Number of Cases.							Ceased to attend.		Discharged.	Remaining on Register.
		Total.	New.			Old.			After more than 10 Exposures.	After less than 10 Exposures.		
			Education.	Health.	Maternity and Child Welfare.	Education.	Health.	Maternity and Child Welfare.				
Bronchitis (including Pneumococcal Phthisis).	310	9	3	—	1	2	—	3	2	2	2	3
Ophthalmia ..	569	18	7	—	—	11	—	—	7	—	3	8
Skin Conditions (Various).	332	13	4	—	2	5	—	2	4 (1 left City, 1 got worse).	1	4	4
Rheumatism and Chorea .. ..	196	4	2	—	—	2	—	—	—	—	4	—
Various .. ..	55	4	—	—	3	1	—	—	1	1	1	1
Osteo-myelitis ..	113	3	—	—	1	—	1	1	—	—	1	2
Totals ..	5182	177	46	9	45	44	6	27	41	19	47	70

Some brief notes follow on the results of treatment in the cases of those children who completed their course of Artificial Sunlight treatment and were discharged during 1931.

### Rickets.

9 cases of rickets completed their course of treatment in 1931—6 of them were young children in the active stage under 2 years of age when they began to attend the Clinic, and 3 were older children suffering from deformities of the limbs resulting from rickets in earlier life. All were given cod liver oil as a supplementary form of treatment. All benefited markedly from the treatment. In the young children nervous symptoms disappeared, teething progressed rapidly and with the minimum of trouble, ligaments became stronger, and such deformities as had already begun to develop were checked and disappeared. In the older children the natural tendency to straightening of



the bones was accelerated and considerable growth in height and weight was noted in each case.

### **Eye Cases.**

Three cases of Phlyctenular Keratitis and one of Chronic Blepharitis completed a course of treatment with very satisfactory results. In the 3 cases of Keratitis, Artificial Sunlight combined with local treatment was given in the early stages along with the use of plain tinted glasses. As soon as the eyes were fit for a retinoscopy the refractive error was corrected. All 3 children did extremely well. The fourth case had Chronic Blepharitis of 2 years' duration, and had also a refractive error. Correction of this alone did not cure the trouble, but after three months' treatment with artificial sunlight the lids were quite normal, and had remained so when the boy was seen two months after cessation of the treatment.

### **Chorea.**

Two cases of Chorea were treated in 1931. One was of 1 week's duration when treatment was commenced, and the other was of 3 weeks' standing, but had been preceded two years before by growing pains, and a mitral lesion was present. In both cases the Artificial Sunlight was combined with exercises to develop muscular co-ordination. Both improved rapidly and returned to school, one after two months, and the other after three, but the treatment was continued for a further two months in each case, before cure was considered complete. Another case of "growing pains" with no other rheumatic manifestations was treated with benefit for six months. During that time she put on 5lbs. 6ozs. in weight, and seldom complained of pains in the limbs during the course of treatment.

### **Paratuberculosis.**

Three cases came under this heading. They were thin, debilitated children with dry coughs and night sweats. One had had Phlyctenular Keratitis earlier, and the other two were suspected of having enlarged glands, one in the mesentery, and the other in the mediastinum. All three did well, they put on weight and their symptoms disappeared. One relapsed when the treatment was discontinued.

### **Non-Pulmonary Tuberculosis.**

Two cases of Abdominal Tuberculosis and one of Cervical Adenitis were treated and discharged in 1931. The two former improved in general condition (one wonders whether the disease

was not already quiescent), but the cervical gland in the third case became larger, caseation set in, and it had to be treated surgically. From one's experience during the last year, one's optimism with regard to the effect of Ultra Violet Rays in cases of Tubercular Cervical Adenitis has been considerably reduced. In one or two cases (still under treatment) caseation set in after temporary improvement. In others the glands slowly subsided. Whether the re-action to this form of treatment depends on the amount of activity in the lesion or on the patient's resistance it is impossible to say. After surgical treatment has been carried out it is worth while continuing the Artificial Sunlight for a time.

### **Skin Conditions.**

One case of Seborrhoea Corporis re-acted rapidly to treatment, and on discharge the skin was quite free from rash and irritation. Two cases of Psoriasis were very disappointing—neither improved much. Another case which had been successfully cleared up in 1930 with Ultra Violet Rays, relapsed in a few months and treatment had to be recommended again with beneficial results. One bad case which had begun after Scarlet Fever got worse, if anything, under treatment and cleared away completely when the child developed Measles. One is therefore sceptical as to the value of Artificial Sunlight in these cases. Some benefit, others do not, but even those which re-act most satisfactorily the treatment has to be continued or recurrences take place. One case of Chilblains on a limb affected with Anterior Poliomyelitis had a month's sunlight treatment, and remained clear for the rest of the Winter.

### **Bronchitis.**

4 cases of chronic bronchitis associated with malnutrition were treated at the Clinic. All 4 did well, and put on weight. 3 of them were school children and during the treatment they were much less frequently off school with coughs than they had been in previous Winters, though acute exacerbation did occur. The other case was a baby with persistent spasmodic cough following Whooping Cough. He responded particularly well. In all 4 cases Cod Liver Oil in some form was given.

### **Debility.**

Under this heading we have all sorts of unsatisfactory children, some of whom benefit by Ultra Violet Ray treatment, and some of whom show not the slightest improvement.



Those cases without definite symptoms were the least satisfactory. There were four in this series, all thin, pale, flabby underweight and languid. One had been a marasmic infant. One was mentally defective and the other two had never been satisfactory. In none of these cases could one truly say that there was any improvement definitely due to the special therapy.

The same applies to those cases where the debility was combined with anæmia. Unless the iron tonic which was prescribed along with the Ultra Violet Ray treatment was persevered with there was no improvement worth mentioning. When the debility was combined with or due to a state of nervous hyperexcitability then Artificial Sunlight did seem to help. Nervous, fidgetty, irritable children, who slept badly and had poor appetites lost their nervous symptoms after a few weeks and put on weight.

Children suffering from debility continuing for a few months after infectious diseases, especially Measles, improved quickly with Sunlight Therapy. There were 4 cases of this sort.

### Various.

In addition to these cases one child with an old Osteomyelitis was treated. The discharge increased for a time and then the wound healed firmly. One case of enlarged Cervical Glands (non-tubercular) was also treated. The glands had been enlarged for a year before treatment, and had subsided completely at the end of 4 months' Sunlight treatment. A backward baby of 1 year was also treated with Ultra Violet Rays combined with massage of the Spinal Muscles. She improved, but probably not more rapidly than she would have done with massage alone.

This brings one to the generally accepted conclusion that Ultra Violet Ray Therapy has a definite sphere of usefulness, but that the limits of its successful use are much narrower than was at first supposed. It is an adjuvant rather than a complete form of treatment. The cases have to be carefully selected, and if benefit is going to be derived it will begin to manifest itself after the first few weeks. Tonsils and Adenoids, running ears, bad teeth and any other defect must be treated at the same time. Otherwise full benefit from the treatment will not be obtained.

JESSIE EELES.



### MENTAL DEFICIENCY.

At the end of 1931, there were 79 mental defectives (39 males and 40 females) on the Register of the Mental Deficiency Authority, and this list of cases does not include children coming under the jurisdiction of the Education Authority. They are classified as follows :—

Under Orders	{ In Institutions ..	14	(5 males and 9 females).
	{ Under Guardian-ship .. ..	1	(Male).
Under Statutory Supervision		23	(13 males and 10 females).
Poor Law Cases	{ Outdoor .. ..	5	(1 male and 4 females).
	{ In Institutions ..	3	(2 males and 1 female).
Under Voluntary Supervision		33	(17 males and 16 females).
Total ..		79	

In addition to the above, there were 84 children (44 boys and 40 girls) between the ages of 7 and 16 years, who had been certified to the Education Authority as feeble-minded. Of these, 73 were attending ordinary schools, and 11 were not attending any school. Wakefield does not possess a Special School for mental defectives, and no children have been sent to special residential schools for some years past, owing to the lack of available accommodation. The lack of a Special School is not only serious from an educational standpoint, but it offers a serious obstacle to the proper functioning of the Mental Deficiency Acts in Wakefield.

#### **The St. Catherine's Home for the Feeble-minded.**

The St. Catherine's Home for the Feeble-minded at Doncaster, which belongs to the South West Yorkshire Board for Mental Deficiency of which Wakefield is a member, was opened for a small number of inmates towards the end of 1931, and 3 feeble-minded girls from Wakefield were admitted. The following statement is taken from a Report of the Board :—

“ The St. Catherine's Estate, in the Rural District of  
 “ Doncaster, and two miles from Doncaster, was purchased  
 “ by the Board in 1929 as the nucleus for a colony for the  
 “ mentally defective from the County Boroughs of Barnsley,  
 “ Dewsbury, Doncaster, Halifax, Huddersfield, Rotherham  
 “ and Wakefield.

“ The Estate consists of 200 acres of park and arable land, St. Catherine’s Hall, outbuildings, gardens and lodge.

“ In the early stages, a scheme for a complete Colony for the accommodation of 640 patients was prepared, taking full advantage of the south aspect and the general disposition of the existing Hall and surroundings. This scheme was approved in principle by the Board of Control, and their sanction was obtained to proceed with the first instalment on the West side for female patients, and in the first instance to accommodate patients in the Hall as follows :—

1. Alterations and adaptation of the existing Hall and outbuildings for 20 female patients, including temporary school, laundry, and alterations to Lodge.
2. Erection of two new pavilions for 120 female patients, one workshop, and temporary boiler house.

“ On completion of the pavilion, the female patients were transferred from the Hall, their places being taken by boy patients.

“ An area of 30 acres of park, land and gardens has been reserved for the present instalment, which is screened from the main road on the West side by a plantation. The remainder of the estate is let off to tenant farmers.

“ It has been decided by the Joint Board and the Board of Control have provisionally approved of a proposal to proceed with a second instalment on the East side of the Colony as follows :—

1. Two new pavilions for 120 male patients, and one workshop, a portion of which will be used as a temporary school.
2. One Low Grade Block for 40 patients.
3. Additional Laundry accommodation.
4. Two pairs of Cottages for male staff on the West side.

“ On completion of the second instalment the female patients will be transferred from the West side and 120 male patients will occupy the vacated pavilions.”

### **The Occupation Centre.**

The Occupation Centre, conducted by the Social Service Council on behalf of the Corporation continues to do excellent work, and I am indebted to Mr. Osbourn, the Secretary of the Council, for the following notes on the Centre :—



“ The Occupation Centre for mental defectives was continued through the year by the Council of Social Service. It was open five days each week, boys attending in the morning and girls in the afternoon. Eight boys and eleven girls were on the Register. Of the boys, seven attended regularly, one was admitted early in December. Seven of the girls attended fairly regularly: three left during the year because of domestic difficulties, and one attended only occasionally. One of the regular attenders was admitted to the Institution at Doncaster towards the close of the year.

“ Mrs. Rawlinson, the Supervisor, appointed in 1930, has acquired an intimate knowledge of each defective and has endeavoured to adapt the work undertaken to meet individual needs. Handicrafts, games, singing and domestic work are part of the activities of the Centre, and all help to make life a little brighter for those who attend and to give them a measure of independence and self-control.

“ In a few instances, slow but striking changes have taken place. One boy who could neither talk nor read, and who had very little muscular control, can now read simple words, and talk sufficiently well to make himself understood, and can also tackle simple handicrafts. Similar encouraging changes have taken place in several boys and girls.

“ During the Summer, occasional outings have been arranged, and a combined party at Christmas was thoroughly enjoyed.”

### **Segregation versus Sterilisation.**

Up to the present, institutional segregation of those feeble-minded persons who cannot be properly cared for in their own homes, or who are a danger to the public, has been considered to be the most effective method of dealing with this unfortunate section of the community. At the present time, there is considerable agitation for the adoption of compulsory sterilisation, as an alternative method to segregation. I have, however, never met anyone with an intimate practical knowledge of mental deficiency who is prepared to support sterilisation as an adequate substitute for segregation. Personally, I believe that sterilisation of the feeble-minded would have but a small effect in reducing the numbers of feeble-minded persons in the community. As a matter of fact, those feeble-minded persons who could be certified under the Mental



Deficiency Acts only contribute a negligible proportion of the births. After a long experience of examining feeble-minded children, I have generally found that the parents of such children are either of average intelligence, or belong to the class that is described in the school period as "dull or backward." It is only occasionally that one would be prepared to regard either or both of the parents as definitely feeble-minded. Further, sterilisation would only have the effect of stopping procreation. It would not render the individual more capable of managing his affairs, or render his behaviour less antisocial. I am therefore afraid that we are not likely to find in sterilisation an easy, cheap, and at the same time, effective means of dealing with the serious problem of the feeble-minded.

### SCHOOL MEDICAL SERVICE.

This service is intimately correlated with the general public health service. The medical work is carried out by the Medical Officer of Health, and the two Assistant Medical Officers, and the work of the School Nurses is carried out by the six Health Visitors. In addition, there is a School Dentist, a School Clinic Nurse and an Orthopaedic Clinic Nurse. The work embraces (1) Routine medical inspection of entrants, intermediates and leavers; (2) Supplementary medical inspection in the schools and at the School Clinic, including special examinations *re* Mental Deficiency, etc.; (3) Treatment of Minor Ailments at the School Clinic; (4) Vision Refraction and prescribing of spectacles at the Ophthalmic Clinic; (5) Dental Inspection and Treatment; (6) Orthopaedic Treatment; (7) Cleanliness Surveys and the following up of defective children by the School Nurses.

During 1931, the number of medical examinations amounted to 11,256, and 7,952 medical certificates were issued. At the Ophthalmic Clinic, conducted by Dr. Allardice, 492 new cases were examined, with 763 attendances, and 439 prescriptions for spectacles were issued. The School Dentist inspected 7,380 children, of whom 5,420 were found to require treatment, and 2,218 were actually treated. 122 children were treated at the Orthopaedic Clinic, with 1,211 attendances. 177 children were treated at the Ultra Violet Ray Clinic, with 5,182 attendances. 1,035 children were treated at the Minor Ailments Clinic, with 17,839 attendances. An additional Clinic was opened at the new Snapethorpe School in November, and 81 cases, with 686 attendances, were treated there up to the end of the year. The School Nurses made 11,303 examinations with regard to cleanliness, etc.

The results of the examinations of the Elementary School children shew that 82 per cent. had carious teeth, 28 per cent. had defective vision, 21 per cent. had diseases of the throat or nose, 17 per cent. of the girls had dirty heads, 10 per cent. had diseases of the lungs (mostly bronchitis), and 10 per cent. had enlarged glands, 5 per cent. had deformities, 4 per cent. had external eye diseases, 4 per cent. had rickets, 4 per cent. had ear disease, 4 per cent. were dull and backward, 3 per cent. were deaf, 2 per cent. had defective nutrition, and less than 1 per cent. had tuberculosis, heart disease, defective speech, mental deficiency, or defective clothing or footgear. 15 per cent. of the children examined were free from any defect, about 16 per cent. of the children examined at routine inspection were referred for treatment other than dental treatment or cleansing. These figures are much the same as last year, though those for defective vision and diseases of the throat and nose are higher. The malnutrition percentage has decreased, which is rather surprising, considering the large amount of unemployment which prevailed during the year. About 81 per cent. of the children referred for treatment obtained it, and this is a slightly increased figure.

#### HEALTH EDUCATION.

During Health Week, held in October, we concentrated as usual on the School Children. The subject chosen was "The Air We Breathe," and, by means of special lessons given by the teachers, and short addresses given in the Senior and Junior Schools by your Medical Officers, as well as by the distribution of literature, the importance of the subject was duly emphasised. The usual essay competition followed and prizes given by the Social Service Council were given for the two best essays in each school, and for the best three in all the schools. Throughout the week, special addresses on various health subjects, particularly those of Maternity and Child Welfare, were given by the Medical Officers and School Dentist, in the Minor Hall, Westgate, and a large number of suitable films were shewn. At the same place, a Dental Exhibition, lent by the Dental Board of the United Kingdom, was shewn throughout the week, and was attended by all the senior scholars, as well as by a large number of parents and the general public. The arrangements for Health Week were made as usual by the Social Service Council, and we are greatly indebted to Mr. Osbourn, the Secretary of the Council, for the great trouble he took to make Health Week the success that it was.

The distribution of the local edition of "Better Health" (1,000 copies monthly) was continued during the year.



## BLINDNESS.

**Number of Blind Persons in Wakefield.**

The Secretary-Home-Teacher of the Wakefield Institution for the Blind has kindly supplied the following list of known blind persons :—

(a) Total number of blind persons in the area of the Wakefield County Borough .. ..	87
(b) Distribution of the number given in (a) :—	
Children below 5 .. .. .	None.
Children awaiting admission to, or unsuitable for admission to Special Schools ..	3
Children in Special Schools .. ..	5
Adolescents undergoing training .. ..	2
Adults undergoing training .. ..	1
Inmates of Institutions .. .. .	2
Inmates of Sunny Lawns Home .. ..	9
Adolescents and adults residing in their own homes .. .. .	65
	<hr/>
	87
	<hr/>

The Public Health Department is not directly associated with the administration of the Blind Persons Act, 1920, except that the ophthalmic examinations and reports required under the Act are made by Dr. Allardice, the School Ophthalmologist. Three persons were so examined and certified during 1931. So far as I know, no special action has been taken under Section 66 of the Public Health Amendment Act, 1925, but the prevention of blindness has always received attention from the Corporation, particularly in connection with the prevention and treatment of ophthalmia neonatorum, which in the past has contributed considerably to the number of blind persons. The attention of the Education Committee has also been drawn to the great need for special educational facilities for school children suffering from high myopia (or severe short sightedness) which sometimes ends in blindness. These children cannot be safely educated in ordinary classes, they are not bad enough to be admitted to blind schools, but should be educated by special methods.